

Schreiber, David

110138

From: Ramirez, Delia
Sent: Tuesday, December 09, 2003 12:00 PM
To: Schreiber, David
Subject: case 09/843,250

Hi,

I would like to request the following interference searches: seq id 2, 26, 32, 33, 34, 35, 36 in the protein databases.

Thank you,

Delia M. Ramirez, Ph.D.

Patent Examiner

Recombinant Enzymes-Art Unit 1652

USPTO

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No.	Score	Match	Length	DB	ID	Description
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1	2408	109.0	449	11	US-05-43-250-33	Sequence 33, App
2	2408	109.0	449	11	US-05-43-250-33	Sequence 33, App
3	2404	39.8	449	11	US-05-43-250-15	Sequence 15, App
4	2404	39.8	449	11	US-05-43-250-15	Sequence 15, App
5	2404	39.8	449	11	US-05-43-250-32	Sequence 32, App
6	2404	39.8	449	11	US-05-43-250-32	Sequence 32, App
7	2403	99.8	449	11	US-05-43-250-35	Sequence 35, App
8	2403	99.8	449	11	US-05-43-250-35	Sequence 35, App
9	2402	99.8	449	11	US-05-43-250-36	Sequence 36, App
10	2402	99.8	449	11	US-05-43-250-36	Sequence 36, App
11	2402	99.8	449	11	US-05-43-250-26	Sequence 26, App
12	2399	99.7	449	11	US-05-43-250-58	Sequence 58, App
13	2399	99.7	449	11	US-05-43-250-58	Sequence 58, App
14	2394	99.4	449	11	US-05-43-250-15	Sequence 15, App
15	2318	36.3	449	11	US-05-43-250-17	Sequence 17, App
16	2318	36.3	449	11	US-05-43-250-17	Sequence 17, App
17	2318	36.3	449	11	US-05-43-250-18	Sequence 18, App
18	2318	36.3	449	11	US-05-43-250-18	Sequence 18, App

db 61 IDEVIVSRQNT

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99

100

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QY 121 KOLYSGSNKKCKGLAEKVARVESHGFTYCGQDPAEPMDYLDGAAWYLFPMFKBSGGL 180
DB 121 KOLYSGSNKKCKGLAEKVARVESHGFTYCGQDPAEPMDYLDGAAWYLFPMFKBSGGL 180
QY 181 ELVGPQKVVYKANKKAPAFNFGDAHVGHVGMTHASLRSGESIFSSLAGNAALPPGAGL 240
DB 181 ELVGPQKVVYKANKKAPAFNFGDAHVGHVGMTHASLRSGESIFSSLAGNAALPPGAGL 240
QY 241 ELVGPQKVVYKANKKAPAFNFGDAHVGHVGMTHASLRSGESIFSSLAGNAALPPGAGL 240
DB 241 ELVGPQKVVYKANKKAPAFNFGDAHVGHVGMTHASLRSGESIFSSLAGNAALPPGAGL 240
QY 241 QWTSKYSGNGWLMGDSGVHSADVLPELAFGAKGKRELMKEIGOVPAWYVSHLACTV 300
DB 241 QWTSKYSGNGWLMGDSGVHSADVLPELAFGAKGKRELMKEIGOVPAWYVSHLACTV 300
QY 301 FPNNSKLTCSGVFKVWPIIDANTTEWTVYALVEKDMPELKRSLASVORTGAPGFWES 360
DB 301 FPNNSKLTCSGVFKVWPIIDANTTEWTVYALVEKDMPELKRSLASVORTGAPGFWES 360
QY 361 DDNDMETASQNGKCYGSDSLLNSLGFSGEDYGVDAVYFGVWGSALGETSVRGFTAY 420
DB 361 DDNDMETASQNGKCYGSDSLLNSLGFSGEDYGVDAVYFGVWGSALGETSVRGFTAY 420
QY 421 QWTSKYSGNGWLMGDSGVHSADVLPELAFGAKGKRELMKEIGOVPAWYVSHLACTV 300
DB 421 QWTSKYSGNGWLMGDSGVHSADVLPELAFGAKGKRELMKEIGOVPAWYVSHLACTV 300
QY 301 FPNNSKLTCSGVFKVWPIIDANTTEWTVYALVEKDMPELKRSLASVORTGAPGFWES 360
DB 301 FPNNSKLTCSGVFKVWPIIDANTTEWTVYALVEKDMPELKRSLASVORTGAPGFWES 360
QY 361 DDNDMETASQNGKCYGSDSLLNSLGFSGEDYGVDAVYFGVWGSALGETSVRGFTAY 420
DB 361 DDNDMETASQNGKCYGSDSLLNSLGFSGEDYGVDAVYFGVWGSALGETSVRGFTAY 420
QY 421 QWTSKYSGNGWLMGDSGVHSADVLPELAFGAKGKRELMKEIGOVPAWYVSHLACTV 300
DB 421 QWTSKYSGNGWLMGDSGVHSADVLPELAFGAKGKRELMKEIGOVPAWYVSHLACTV 300
QY 449 QWTSKYSGNGWLMGDSGVHSADVLPELAFGAKGKRELMKEIGOVPAWYVSHLACTV 449
DB 449 QWTSKYSGNGWLMGDSGVHSADVLPELAFGAKGKRELMKEIGOVPAWYVSHLACTV 449

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RESULT 3

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US-09-843-250-14
; Sequence 14, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 975, 006US2
; CURRENT APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 975, 006US2
; CURRENT APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO. 1
; TYPE: PRP
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.3.
US-09-843-250-14

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Query Match 99.8%; Score 2404, DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 3,7e+225;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 MYNNKLVLSGSLGSHGLHGBELPQHEKLTIPANWLFTHDSLIPADQVYVANG 60
DB 1 MYNNKLVLSGSLGSHGLHGBELPQHEKLTIPANWLFTHDSLIPADQVYVANG 60
QY 61 IDVTVSQQNDSTAFIVNCHRGKTLVSEVGNAGKGVYVGHGKFGSGNGLQVTFPE 120
DB 61 IDVTVSQQNDSTAFIVNCHRGKTLVSEVGNAGKGVYVGHGKFGSGNGLQVTFPE 120
QY 121 KOLYSGSNKKCKGLAEKVARVESHGFTYCGQDPAEPMDYLDGAAWYLFPMFKBSGGL 180
DB 121 KOLYSGSNKKCKGLAEKVARVESHGFTYCGQDPAEPMDYLDGAAWYLFPMFKBSGGL 180
QY 181 ELVGPQKVVYKANKKAPAFNFGDAHVGHVGMTHASLRSGESIFSSLAGNAALPPGAGL 240
DB 181 ELVGPQKVVYKANKKAPAFNFGDAHVGHVGMTHASLRSGESIFSSLAGNAALPPGAGL 240
QY 241 QWTSKYSGNGWLMGDSGVHSADVLPELAFGAKGKRELMKEIGOVPAWYVSHLACTV 300
DB 241 QWTSKYSGNGWLMGDSGVHSADVLPELAFGAKGKRELMKEIGOVPAWYVSHLACTV 300
QY 301 FPNNSKLTCSGVFKVWPIIDANTTEWTVYALVEKDMPELKRSLASVORTGAPGFWES 360
DB 301 FPNNSKLTCSGVFKVWPIIDANTTEWTVYALVEKDMPELKRSLASVORTGAPGFWES 360
QY 361 DDNDMETASQNGKCYGSDSLLNSLGFSGEDYGVDAVYFGVWGSALGETSVRGFTAY 420
DB 361 DDNDMETASQNGKCYGSDSLLNSLGFSGEDYGVDAVYFGVWGSALGETSVRGFTAY 420

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US-09-843-250-2

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Query Match 99.8%; Score 2404; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 3.7e+225;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 MYNNKLVLSGSLGSHGLHGBELPQHEKLTIPANWLFTHDSLIPADQVYVANG 60
DB 1 MYNNKLVLSGSLGSHGLHGBELPQHEKLTIPANWLFTHDSLIPADQVYVANG 60
QY 61 IDVTVSQQNDSTAFIVNCHRGKTLVSEVGNAGKGVYVGHGKFGSGNGLQVTFPE 120
DB 61 IDVTVSQQNDSTAFIVNCHRGKTLVSEVGNAGKGVYVGHGKFGSGNGLQVTFPE 120
QY 121 KOLYSGSNKKCKGLAEKVARVESHGFTYCGQDPAEPMDYLDGAAWYLFPMFKBSGGL 180
DB 121 KOLYSGSNKKCKGLAEKVARVESHGFTYCGQDPAEPMDYLDGAAWYLFPMFKBSGGL 180
QY 181 ELVGPQKVVYKANKKAPAFNFGDAHVGHVGMTHASLRSGESIFSSLAGNAALPPGAGL 240
DB 181 ELVGPQKVVYKANKKAPAFNFGDAHVGHVGMTHASLRSGESIFSSLAGNAALPPGAGL 240

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Db 361 DDDNMNTASQNGKKYQSRSDLSNLGFGEDVYGVDAVFGVGSALGETSYRGFRAY 420
 QY 421 QAVTSSNNWAFERASSTWTELTAKTOR 449
 Db 421 QAVTSSNNWAFERASSTWTELTAKTOR 449

RESULT 4

US-09-843-250-15
 ; Sequence 15, Application US/09843250
 ; Publication No. US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Paralel, R.
 ; APPLICANT: Gibson, D.
 ; APPLICANT: Resnick, S.
 ; APPLICANT: Lee, K.
 ; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
 ; FILE REFERENCE: 875 006152
 ; CURRENT APPLICATION NUMBER: US/09/843,250
 ; CURRENT FILING DATE: 2001-04-26
 ; PRIOR FILING DATE: PCT/US99/25079
 ; PRIOR FILING DATE: 1998-10-26
 ; PRIOR FILING DATE: 1998-10-26
 ; PRIOR FILING DATE: 1998-10-26
 ; NUMBER OF SEQ ID NOS: 65
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 15
 ; LENGTH: 449
 ; TYPE: PRT
 ; FEATURES:
 ; ORIGIN: Artificial Sequence
 ; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:4.
 US-09-843-250-15

Query Match 99.84; Score 2104; DB 11; Length 449;
 Best Local Similarity 99.84; Pred. NO. 3, 225; Indels 0; Gaps 0;
 Matches 448; Conservative 0; Mismatches 1;

QY 1 MYNNKTVLSESGISQKHLIHDELFQHELTIPANWLFTHSLIPAGDYVYKNG 60
 Db 1 MYNNKTVLSESGISQKHLIHDELFQHELTIPANWLFTHSLIPAGDYVYKNG 60
 QY 61 IDNVIVSQNDSTAFVLCNCHRGKTVLVSQGNAGKGFVCSYHGNGSGNGELASVPE 120
 Db 61 IDNVIVSQNDSTAFVLCNCHRGKTVLVSQGNAGKGFVCSYHGNGSGNGELASVPE 120
 QY 121 KLYGSLNKKLCKLKEVAVESFGTFYGCFOEAPFLMDYLDGDAWYLPMPFHSGGL 180
 Db 121 KLYGSLNKKLCKLKEVAVESFGTFYGCFOEAPFLMDYLDGDAWYLPMPFHSGGL 180
 QY 181 ELVGPGRVIVKANKPAFNVGDVAVGHVGHTHASSLSGSGIFSSLAGNALPPEGAGL 240
 Db 181 ELVGPGRVIVKANKPAFNVGDVAVGHVGHTHASSLSGSGIFSSLAGNALPPEGAGL 240
 QY 241 QMTSKYSGMGVLMJGTSVSHSDVLPVLMATGQAQRKLKEIGDVARVYSHLACTV 300
 Db 241 QMTSKYSGMGVLMJGTSVSHSDVLPVLMATGQAQRKLKEIGDVARVYSHLACTV 300
 QY 301 FNNSMVCTGSGVKNWFDANTTWYTVAVKCPEDLKLRLADSVORTAGPAGNES 360
 Db 301 FNNSMVCTGSGVKNWFDANTTWYTVAVKCPEDLKLRLADSVORTAGPAGNES 360
 QY 361 DNDNMNTASQNGKKYQSRSDLSNLGFGEDVYGVDAVFGVGSALGETSYRGFRAY 420
 Db 361 DNDNMNTASQNGKKYQSRSDLSNLGFGEDVYGVDAVFGVGSALGETSYRGFRAY 420
 QY 421 QAVTSSNNWAFERASSTWTELTAKTOR 449
 Db 421 QAVTSSNNWAFERASSTWTELTAKTOR 449
 QY 301 FNNSMVCTGSGVKNWFDANTTWYTVAVKCPEDLKLRLADSVORTAGPAGNES 360
 Db 301 FNNSMVCTGSGVKNWFDANTTWYTVAVKCPEDLKLRLADSVORTAGPAGNES 360
 QY 361 DNDNMNTASQNGKKYQSRSDLSNLGFGEDVYGVDAVFGVGSALGETSYRGFRAY 420
 Db 361 DNDNMNTASQNGKKYQSRSDLSNLGFGEDVYGVDAVFGVGSALGETSYRGFRAY 420
 QY 421 QAVTSSNNWAFERASSTWTELTAKTOR 449
 Db 421 QAVTSSNNWAFERASSTWTELTAKTOR 449

RESULT 5

US-09-843-250-32
 ; Sequence 32, Application US/09843250
 ; Publication No. US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Paralel, R.
 ; APPLICANT: Gibson, D.
 ; APPLICANT: Resnick, S.
 ; APPLICANT: Lee, K.
 ; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the

US-09-843-250-34
 ; Sequence 34, Application US/09843250
 ; Publication No. US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Paralel, R.
 ; APPLICANT: Gibson, D.
 ; APPLICANT: Resnick, S.
 ; APPLICANT: Lee, K.
 ; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the

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; FILE REFERENCE: 875.006US2
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO: 34
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURES:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:29.
US-09-843-250-34

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Query Match      99.84; Score 2403; DB 11; Length 449;
Best Local Similarity 99.84; Pred. No. 4.6e-225;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.29.
US-09-843-250-34

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QY 1 MYNNKLVISSEGLSGQHLIHDEELFOHELTIFARNMLFTHDSLIPADGVYTAAG 60
DB 1 MYNNKLVISSEGLSGQHLIHDEELFOHELTIFARNMLFTHDSLIPADGVYTAAG 60
QY 61 IDIVIVRQNDSTAFVLCURKCTIVSVEAGNAGFVCSYHGWGSGNGELSPPE 120
DB 61 IDIVIVRQNDSTAFVLCURKCTIVSVEAGNAGFVCSYHGWGSGNGELSPPE 120
QY 121 KOLYGSILNKCLGLKLVAVESFGFTYGCFOEAPPLMDYLDGDAVYLFPMFBSGGL 180
DB 121 KOLYGSILNKCLGLKLVAVESFGFTYGCFOEAPPLMDYLDGDAVYLFPMFBSGGL 180
QY 181 ELVGPQGVYIKAMKAPAEFVGDVYHGWTHASSLSGESIFSSLAGNALPPEAGL 240
DB 181 ELVGPQGVYIKAMKAPAEFVGDVYHGWTHASSLSGESIFSSLAGNALPPEAGL 240
QY 241 QMTSKYSGVGLMDYSGVHSADVPELMAFQGAQERLNKEIGOVARIYSHLNTV 300
DB 241 QMTSKYSGVGLMDYSGVHSADVPELMAFQGAQERLNKEIGOVARIYSHLNTV 300
QY 301 FNNNSMLTCSGVKFWNFIDANTETWYVAIYVKOMPELKEADSVQRTGAPGWES 360
DB 301 FNNNSMLTCSGVKFWNFIDANTETWYVAIYVKOMPELKEADSVQRTGAPGWES 360
QY 361 DDNDMETSQNGKKYQSRDLSLNGFGSDVYGDVYGVGVSALCESYVGFYRAY 420
DB 361 DDNDMETSQNGKKYQSRDLSLNGFGSDVYGDVYGVGVSALCESYVGFYRAY 420
QY 421 QAVSSSNWAEFHASSTHTELTAKTDR 449
DB 421 QAVSSSNWAEFHASSTHTELTAKTDR 449

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RESULT 7
US-09-843-250-35
; FILE REFERENCE: 875.006US2
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; TITLE OF INVENTION: No. US2003002235A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.006US2
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0

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; SEQ ID NO 35
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURES:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.30.
US-09-843-250-35

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Query Match      99.84; Score 2403; DB 11; Length 449;
Best Local Similarity 99.84; Pred. No. 4.6e-225;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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QY 1 MYNNKLVISSEGLSGQHLIHDEELFOHELTIFARNMLFTHDSLIPADGVYTAAG 60
DB 1 MYNNKLVISSEGLSGQHLIHDEELFOHELTIFARNMLFTHDSLIPADGVYTAAG 60
QY 61 IDIVIVRQNDSTAFVLCURKCTIVSVEAGNAGFVCSYHGWGSGNGELSPPE 120
DB 61 IDIVIVRQNDSTAFVLCURKCTIVSVEAGNAGFVCSYHGWGSGNGELSPPE 120
QY 121 KOLYGSILNKCLGLKLVAVESFGFTYGCFOEAPPLMDYLDGDAVYLFPMFBSGGL 180
DB 121 KOLYGSILNKCLGLKLVAVESFGFTYGCFOEAPPLMDYLDGDAVYLFPMFBSGGL 180
QY 181 ELVGPQGVYIKAMKAPAEFVGDVYHGWTHASSLSGESIFSSLAGNALPPEAGL 240
DB 181 ELVGPQGVYIKAMKAPAEFVGDVYHGWTHASSLSGESIFSSLAGNALPPEAGL 240
QY 241 QMTSKYSGVGLMDYSGVHSADVPELMAFQGAQERLNKEIGOVARIYSHLNTV 300
DB 241 QMTSKYSGVGLMDYSGVHSADVPELMAFQGAQERLNKEIGOVARIYSHLNTV 300
QY 301 FNNNSMLTCSGVKFWNFIDANTETWYVAIYVKOMPELKEADSVQRTGAPGWES 360
DB 301 FNNNSMLTCSGVKFWNFIDANTETWYVAIYVKOMPELKEADSVQRTGAPGWES 360
QY 361 DDNDMETSQNGKKYQSRDLSLNGFGSDVYGDVYGVGVSALCESYVGFYRAY 420
DB 361 DDNDMETSQNGKKYQSRDLSLNGFGSDVYGDVYGVGVSALCESYVGFYRAY 420
QY 421 QAVSSSNWAEFHASSTHTELTAKTDR 449
DB 421 QAVSSSNWAEFHASSTHTELTAKTDR 449

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RESULT 8
US-09-843-250-36
; FILE REFERENCE: 875.006US2
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; TITLE OF INVENTION: No. US2003002235A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.006US2
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURES:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.31.
US-09-843-250-36
Query Match      99.84; Score 2403; DB 11; Length 449;

```

Best Local Similarity 99.8%; Pred. No. 4.6e-225; Indels 0; Gaps 0; Matches 448; Conservative 0; Mismatches 1;

QY 1 MYNNKLVNLSGSLGQHLHIGDELPFQHELTIPANNWLFTHSLIPADGVYVANG 60

DB 1 MYNNKLVNLSGSLGQHLHIGDELPFQHELTIPANNWLFTHSLIPADGVYVANG 60

QY 61 IDIVYVSNQGSIDAFVAVCHRGKTIIVSVEAGNAGFVCSHNGFGNGELQSVPE 120

DB 61 IDIVYVSNQGSIDAFVAVCHRGKTIIVSVEAGNAGFVCSHNGFGNGELQSVPE 120

QY 121 KDLYGSLNKKLCGLKEVAVESFHGTYVCFQDPAFLADYLDGAAWLYEMFVSGSL 180

DB 121 KDLYGSLNKKLCGLKEVAVESFHGTYVCFQDPAFLADYLDGAAWLYEMFVSGSL 180

QY 181 ELVGPQKVTYVANKPAFAENFVDGVAHVHTHASSLSGSISSSLAGNALPPGAGL 240

DB 181 ELVGPQKVTYVANKPAFAENFVDGVAHVHTHASSLSGSISSSLAGNALPPGAGL 240

QY 241 QMTSKYSGMGLVADYVPSMAVSGADLVPSMAVSGADLVPSMAVSGADLVPSMAV 300

DB 241 QMTSKYSGMGLVADYVPSMAVSGADLVPSMAVSGADLVPSMAVSGADLVPSMAV 300

QY 301 FPNMSMTCSGVFVWNPIDANTETWYVAYVEKMFEDLGLAASVQVAGAPGES 360

DB 301 FPNMSMTCSGVFVWNPIDANTETWYVAYVEKMFEDLGLAASVQVAGAPGES 360

QY 361 DDNNMETASQNGKTYQSDSLNGLGFGEDVGVGVGVGKSAIGETSYGTRAY 420

DB 361 DDNNMETASQNGKTYQSDSLNGLGFGEDVGVGVGVGKSAIGETSYGTRAY 420

QY 421 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 421 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

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DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

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DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

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DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 121 KDLYGSLNKKLCGLKEVAVESFHGTYVCFQDPAFLADYLDGAAWLYEMFVSGSL 180

DB 121 KDLYGSLNKKLCGLKEVAVESFHGTYVCFQDPAFLADYLDGAAWLYEMFVSGSL 180

QY 181 ELVGPQKVTYVANKPAFAENFVDGVAHVHTHASSLSGSISSSLAGNALPPGAGL 240

DB 181 ELVGPQKVTYVANKPAFAENFVDGVAHVHTHASSLSGSISSSLAGNALPPGAGL 240

QY 241 QMTSKYSGMGLVADYVPSMAVSGADLVPSMAVSGADLVPSMAVSGADLVPSMAV 300

DB 241 QMTSKYSGMGLVADYVPSMAVSGADLVPSMAVSGADLVPSMAVSGADLVPSMAV 300

QY 301 FPNMSMTCSGVFVWNPIDANTETWYVAYVEKMFEDLGLAASVQVAGAPGES 360

DB 301 FPNMSMTCSGVFVWNPIDANTETWYVAYVEKMFEDLGLAASVQVAGAPGES 360

QY 361 DDNNMETASQNGKTYQSDSLNGLGFGEDVGVGVGVGKSAIGETSYGTRAY 420

DB 361 DDNNMETASQNGKTYQSDSLNGLGFGEDVGVGVGVGKSAIGETSYGTRAY 420

QY 421 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 421 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

QY 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

DB 449 QAVYSSNNAEFPEASSTWHTLTKTIDR 449

Db 241 QWTSKGGMTLADGTVGSHVGLVPELAAVFGVAGVGTGATVPPVGVGKAIGTSTGYGTRAY 300
 QY 301 FNNNSMLTCSGVKWPPIDANTTEWTTAIVKCNFEDLKRRLASVQTAGAPGWES 360
 Db 301 FNNNSMLTCSGVKWPPIDANTTEWTTAIVKCNFEDLKRRLASVQTAGAPGWES 360
 QY 361 DDNDNMETASQNKCKYQSGSDLLSLNGLFGEDVGDVAFVGVGKGAIGTSTGYGTRAY 420
 QY 361 DDNDNMETASQNKCKYQSGSDLLSLNGLFGEDVGDVAFVGVGKGAIGTSTGYGTRAY 420
 QY 421 QNVSSSNWAFBHSASSTWHTLTKTKTR 449
 Db 421 QNVSSSNWAFBHSASSTWHTLTKTKTR 449

RESULT 11
 US-09-843-250-38
 ; Application US/09843250
 ; Publication No. US200310022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Perales, R.
 ; APPLICANT: Gibson, S.
 ; APPLICANT: Remick, S.
 ; APPLICANT: Lee, K.
 ; TITLE OF INVENTION: NO. US200310022335A1el naphthalene dioxygenase and methods for the
 ; FILE REFERENCE: 870 006882 US/09/843,250
 ; CURRENT FILING DATE: 2001-04-26
 ; PRIOR APPLICATION NUMBER: US/09/843,250
 ; PRIOR FILING DATE: 2001-04-26
 ; PRIOR APPLICATION NUMBER: PCT/US99/25079
 ; PRIOR FILING DATE: 1999-10-26
 ; PRIOR APPLICATION NUMBER: US 60/105,575
 ; PRIOR FILING DATE: 1998-10-26
 ; NUMBER OF SEQ ID NOS: 65
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NOS: 1-65
 ; LENGTH: 449
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:56.
 US-09-843-250-58

Query Match 99.78; Score 2401; DB 11; Length 449;
 Best Local Similarity 99.81; Pred. No. 7,2e-225; Indels 0; Gaps 0;
 Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MYNNKTLVSSGSLGQGLIHGDSLEFQHEKLTIPANMLFTHSLIPADVPTVANG 60
 DB 1 MYNNKTLVSSGSLGQGLIHGDSLEFQHEKLTIPANMLFTHSLIPADVPTVANG 60
 QY 61 IDTVTVSGNSGSLGQGLIHGDSLEFQHEKLTIPANMLFTHSLIPADVPTVANG 120
 DB 61 IDTVTVSGNSGSLGQGLIHGDSLEFQHEKLTIPANMLFTHSLIPADVPTVANG 120
 QY 121 KLVYSGNSGSLGQGLIHGDSLEFQHEKLTIPANMLFTHSLIPADVPTVANG 180
 DB 121 KLVYSGNSGSLGQGLIHGDSLEFQHEKLTIPANMLFTHSLIPADVPTVANG 180
 QY 181 ELVPPGTVVTKANWPAENVGVNVTWTHSSLSGESSIPSLAGNALPFGAGL 240
 DB 181 ELVPPGTVVTKANWPAENVGVNVTWTHSSLSGESSIPSLAGNALPFGAGL 240
 QY 241 QWTSKGGMTLADGTVGSHVGLVPELAAVFGVAGVGTGATVPPVGVGKAIGTSTGYGTRAY 300
 DB 241 QWTSKGGMTLADGTVGSHVGLVPELAAVFGVAGVGTGATVPPVGVGKAIGTSTGYGTRAY 300
 QY 301 FNNNSMLTCSGVKWPPIDANTTEWTTAIVKCNFEDLKRRLASVQTAGAPGWES 360
 DB 301 FNNNSMLTCSGVKWPPIDANTTEWTTAIVKCNFEDLKRRLASVQTAGAPGWES 360
 QY 361 DDNDNMETASQNKCKYQSGSDLLSLNGLFGEDVGDVAFVGVGKGAIGTSTGYGTRAY 420
 DB 361 DDNDNMETASQNKCKYQSGSDLLSLNGLFGEDVGDVAFVGVGKGAIGTSTGYGTRAY 420

Db 361 DDNDNMETASQNKCKYQSGSDLLSLNGLFGEDVGDVAFVGVGKGAIGTSTGYGTRAY 420
 QY 421 QNVSSSNWAFBHSASSTWHTLTKTKTR 449
 Db 421 QNVSSSNWAFBHSASSTWHTLTKTKTR 449

RESULT 12
 US-09-843-250-16
 ; Application US/09843250
 ; Publication No. US200310022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Perales, R.
 ; APPLICANT: Gibson, S.
 ; APPLICANT: Remick, S.
 ; APPLICANT: Lee, K.
 ; TITLE OF INVENTION: NO. US200310022335A1el naphthalene dioxygenase and methods for the
 ; FILE REFERENCE: 870 006882 US/09/843,250
 ; CURRENT FILING DATE: 2001-04-26
 ; PRIOR APPLICATION NUMBER: US/09/843,250
 ; PRIOR APPLICATION NUMBER: PCT/US99/25079
 ; PRIOR FILING DATE: 1999-10-26
 ; PRIOR APPLICATION NUMBER: US 60/105,575
 ; PRIOR FILING DATE: 1998-10-26
 ; NUMBER OF SEQ ID NOS: 65
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NOS: 1-65
 ; LENGTH: 449
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:5.
 US-09-843-250-16

Query Match 99.64; Score 2399; DB 11; Length 449;
 Best Local Similarity 99.64; Pred. No. 1.1e-224; Indels 0; Gaps 0;
 Matches 447; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MYNNKTLVSSGSLGQGLIHGDSLEFQHEKLTIPANMLFTHSLIPADVPTVANG 60
 DB 1 MYNNKTLVSSGSLGQGLIHGDSLEFQHEKLTIPANMLFTHSLIPADVPTVANG 60
 QY 61 IDTVTVSGNSGSLGQGLIHGDSLEFQHEKLTIPANMLFTHSLIPADVPTVANG 120
 DB 61 IDTVTVSGNSGSLGQGLIHGDSLEFQHEKLTIPANMLFTHSLIPADVPTVANG 120
 QY 121 KLVYSGNSGSLGQGLIHGDSLEFQHEKLTIPANMLFTHSLIPADVPTVANG 180
 DB 121 KLVYSGNSGSLGQGLIHGDSLEFQHEKLTIPANMLFTHSLIPADVPTVANG 180
 QY 181 ELVPPGTVVTKANWPAENVGVNVTWTHSSLSGESSIPSLAGNALPFGAGL 240
 DB 181 ELVPPGTVVTKANWPAENVGVNVTWTHSSLSGESSIPSLAGNALPFGAGL 240
 QY 241 QWTSKGGMTLADGTVGSHVGLVPELAAVFGVAGVGTGATVPPVGVGKAIGTSTGYGTRAY 300
 DB 241 QWTSKGGMTLADGTVGSHVGLVPELAAVFGVAGVGTGATVPPVGVGKAIGTSTGYGTRAY 300
 QY 301 FNNNSMLTCSGVKWPPIDANTTEWTTAIVKCNFEDLKRRLASVQTAGAPGWES 360
 DB 301 FNNNSMLTCSGVKWPPIDANTTEWTTAIVKCNFEDLKRRLASVQTAGAPGWES 360
 QY 361 DDNDNMETASQNKCKYQSGSDLLSLNGLFGEDVGDVAFVGVGKGAIGTSTGYGTRAY 420
 DB 361 DDNDNMETASQNKCKYQSGSDLLSLNGLFGEDVGDVAFVGVGKGAIGTSTGYGTRAY 420
 QY 421 QNVSSSNWAFBHSASSTWHTLTKTKTR 449
 Db 421 QNVSSSNWAFBHSASSTWHTLTKTKTR 449

RESULT 13
 US-09-843-250-17

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; Sequence 17, Application US/09843250
; Publication No. US20030022335A1
; CURRENT FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; APPLICANT: Paralel, R.
; APPLICANT: Remick, S.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.06082
; CURRENT APPLICATION NUMBER: US/09/843,250
; PUBLICATION NUMBER: US20030022335A1
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: FastSeq For Windows Version 4.0
; SEQ ID NO 17
; LENGTH: 449
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.6.
US-09-843-250-17
Query Match          99.4%; Score 2394; DB 11; Length 449;
Best Local Similarity 99.3%; Pred. No. 3.5e-234;
Matches 434; Conservative 1; Mismatches 0; Gaps 0;
QY 1 MYNNKILVSESGLSQHLIHGBELFOHELATIPANNMLFTHOSLIPADQVYVANG 60
DB 1 MYNNKILVSESGLSQHLIHGBELFOHELATIPANNMLFTHOSLIPADQVYVANG 60
QY 61 IDEYVSRQNGSITAFJAVCHRGKTLVSEAGNAGKFCVSTHGFGSNGELQVPE 120
DB 61 IDEYVSRQNGSITAFJAVCHRGKTLVSEAGNAGKFCVSTHGFGSNGELQVPE 120
QY 121 KOLGSELNKCLGKEVARVSEFGFYGCPOEAPPLMDYLDAAWYLEPMSGGL 180
DB 121 KOLGSELNKCLGKEVARVSEFGFYGCPOEAPPLMDYLDAAWYLEPMSGGL 180
QY 181 ELVGPQGVVITANKKAPENFYGDYAVHWHTASLSEGSIFSLAGNALPPGAGL 240
DB 181 ELVGPQGVVITANKKAPENFYGDYAVHWHTASLSEGSIFSLAGNALPPGAGL 240
QY 241 QNTSKYSGGVGVFWPMDANTTWVTVAIVEKMPEDLKLRLASVQVTPAGPMS 300
DB 241 QNTSKYSGGVGVFWPMDANTTWVTVAIVEKMPEDLKLRLASVQVTPAGPMS 300
QY 301 FPNNSMLTCSGVGVFWPMDANTTWVTVAIVEKMPEDLKLRLASVQVTPAGPMS 360
DB 301 FPNNSMLTCSGVGVFWPMDANTTWVTVAIVEKMPEDLKLRLASVQVTPAGPMS 360
QY 361 DDNNMETASQNGKYSQSDLSNLGCEVDYGVNTPGVGSKAIGTSVGTFRAY 420
DB 361 DDNNMETASQNGKYSQSDLSNLGCEVDYGVNTPGVGSKAIGTSVGTFRAY 420
QY 421 QNTSSSWNAEFHSSSTHTLTKTTR 449
DB 421 QNTSSSWNAEFHSSSTHTLTKTTR 449

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RESULT 14
US-09-843-250-18
; Sequence 18, Application US/09843250
; Publication No. US20030022335A1
; CURRENT FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; APPLICANT: Paralel, R.
; APPLICANT: Remick, S.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.06082
US-09-843-250-18
Query Match          99.4%; Score 2394; DB 11; Length 449;
Best Local Similarity 99.3%; Pred. No. 3.5e-234;
Matches 434; Conservative 1; Mismatches 0; Gaps 0;
QY 1 MYNNKILVSESGLSQHLIHGBELFOHELATIPANNMLFTHOSLIPADQVYVANG 60
DB 1 MYNNKILVSESGLSQHLIHGBELFOHELATIPANNMLFTHOSLIPADQVYVANG 60
QY 61 IDEYVSRQNGSITAFJAVCHRGKTLVSEAGNAGKFCVSTHGFGSNGELQVPE 120
DB 61 IDEYVSRQNGSITAFJAVCHRGKTLVSEAGNAGKFCVSTHGFGSNGELQVPE 120
QY 121 KOLGSELNKCLGKEVARVSEFGFYGCPOEAPPLMDYLDAAWYLEPMSGGL 180
DB 121 KOLGSELNKCLGKEVARVSEFGFYGCPOEAPPLMDYLDAAWYLEPMSGGL 180
QY 181 ELVGPQGVVITANKKAPENFYGDYAVHWHTASLSEGSIFSLAGNALPPGAGL 240
DB 181 ELVGPQGVVITANKKAPENFYGDYAVHWHTASLSEGSIFSLAGNALPPGAGL 240
QY 241 QNTSKYSGGVGVFWPMDANTTWVTVAIVEKMPEDLKLRLASVQVTPAGPMS 300
DB 241 QNTSKYSGGVGVFWPMDANTTWVTVAIVEKMPEDLKLRLASVQVTPAGPMS 300
QY 301 FPNNSMLTCSGVGVFWPMDANTTWVTVAIVEKMPEDLKLRLASVQVTPAGPMS 360
DB 301 FPNNSMLTCSGVGVFWPMDANTTWVTVAIVEKMPEDLKLRLASVQVTPAGPMS 360
QY 361 DDNNMETASQNGKYSQSDLSNLGCEVDYGVNTPGVGSKAIGTSVGTFRAY 420
DB 361 DDNNMETASQNGKYSQSDLSNLGCEVDYGVNTPGVGSKAIGTSVGTFRAY 420
QY 421 QNTSSSWNAEFHSSSTHTLTKTTR 449
DB 421 QNTSSSWNAEFHSSSTHTLTKTTR 449

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RESULT 15
US-09-843-250-19
; Sequence 19, Application US/09843250
; Publication No. US20030022335A1
; CURRENT FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; APPLICANT: Paralel, R.
; APPLICANT: Remick, S.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.06082
US-09-843-250-19
Query Match          97.4%; Score 2346; DB 11; Length 449;
Best Local Similarity 96.7%; Pred. No. 1.6e-219;
Matches 434; Conservative 10; Mismatches 5; Indels 0; Gaps 0;
QY 1 MYNNKILVSESGLSQHLIHGBELFOHELATIPANNMLFTHOSLIPADQVYVANG 60
DB 1 MYNNKILVSESGLSQHLIHGBELFOHELATIPANNMLFTHOSLIPADQVYVANG 60
QY 61 IDEYVSRQNGSITAFJAVCHRGKTLVSEAGNAGKFCVSTHGFGSNGELQVPE 120
DB 61 IDEYVSRQNGSITAFJAVCHRGKTLVSEAGNAGKFCVSTHGFGSNGELQVPE 120
QY 121 KOLGSELNKCLGKEVARVSEFGFYGCPOEAPPLMDYLDAAWYLEPMSGGL 180
DB 121 KOLGSELNKCLGKEVARVSEFGFYGCPOEAPPLMDYLDAAWYLEPMSGGL 180
QY 181 ELVGPQGVVITANKKAPENFYGDYAVHWHTASLSEGSIFSLAGNALPPGAGL 240
DB 181 ELVGPQGVVITANKKAPENFYGDYAVHWHTASLSEGSIFSLAGNALPPGAGL 240
QY 241 QNTSKYSGGVGVFWPMDANTTWVTVAIVEKMPEDLKLRLASVQVTPAGPMS 300
DB 241 QNTSKYSGGVGVFWPMDANTTWVTVAIVEKMPEDLKLRLASVQVTPAGPMS 300
QY 301 FPNNSMLTCSGVGVFWPMDANTTWVTVAIVEKMPEDLKLRLASVQVTPAGPMS 360
DB 301 FPNNSMLTCSGVGVFWPMDANTTWVTVAIVEKMPEDLKLRLASVQVTPAGPMS 360
QY 361 DDNNMETASQNGKYSQSDLSNLGCEVDYGVNTPGVGSKAIGTSVGTFRAY 420
DB 361 DDNNMETASQNGKYSQSDLSNLGCEVDYGVNTPGVGSKAIGTSVGTFRAY 420
QY 421 QNTSSSWNAEFHSSSTHTLTKTTR 449
DB 421 QNTSSSWNAEFHSSSTHTLTKTTR 449

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/ LENGTH: 449
/ ORGANISM: Artificial Sequence
/ FEATURE:
/ OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:8.
/ LOCATION: (15)...(35)
/ OTHER INFORMATION: Xaa = any amino acid.
/ US-09-843-250-19

Query Match          36 38; Score 2318; Db 11; Length 449;
Best Local Similarity 55.5%; Pred. No. 8,7e-217;
Matches 429; Conservative 12; Mismatches 8; Indels 0; Gaps 0;

QY 1 MNYKNTLHESGLSQGLTHQDELFOHELRTIPANWLFTHDSLTPACQVYTAAG 60
DB 1 MNYKNTLHESGLSQGLTHQDELFOHELRTIPANWLFTHDSLTPACQVYTAAG 60
QY 61 IDRVIVKQSGSTRAFLNVCNKKCTLVNCKNGKFCSTHGGTSGNGELQSPFE 120
DB 61 IDRVIVKQSGSTRAFLNVCNKKCTLVNCKNGKFCSTHGGTSGNGELQSPFE 120
QY 121 VQVYKSRNKKVCLGKLVNARVSTFVNGCTQGRVPTMGLQDANMTLKPWPGGL 180
DB 121 VQVYKSRNKKVCLGKLVNARVSTFVNGCTQGRVPTMGLQDANMTLKPWPGGL 180
QY 121 KELYGRSLNKKCTLGKLVNARVSTFVNGCTQGRVPTMGLQDANMTLKPWPGGL 180
DB 121 KELYGRSLNKKCTLGKLVNARVSTFVNGCTQGRVPTMGLQDANMTLKPWPGGL 180
QY 181 ELKQPSGVNVTAKNKAFAKNVQKAVNQNTHAASLQSGSTFESLAKNKLDPKAGL 240
DB 181 ELKQPSGVNVTAKNKAFAKNVQKAVNQNTHAASLQSGSTFESLAKNKLDPKAGL 240
QY 241 QKSTVSGKQVLAHQVGSCHRAKLPRLMARGAKQGLNKEIGVDRAIVRSKLVCTV 300
DB 241 QKSTVSGKQVLAHQVGSCHRAKLPRLMARGAKQGLNKEIGVDRAIVRSKLVCTV 300
QY 301 FANVSKTACSGVKNPFIANTQVTVVAIVKRWGFLKRLAASVQVTPGKQWES 360
DB 301 FANVSKTACSGVKNPFIANTQVTVVAIVKRWGFLKRLAASVQVTPGKQWES 360
QY 361 DNNQNTLASQKCTQSDSLGSLKLPEDYVGDVPTGTVGSAIGTSTYGTTRAY 420
DB 361 DNNQNTLASQKCTQSDSLGSLKLPEDYVGDVPTGTVGSAIGTSTYGTTRAY 420
QY 421 QAVVSNMAVFEHASPMTIELNTR 449
DB 421 QAVVSNMAVFEHASPMTIELNTR 449

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Search completed: December 9, 2003, 16:09:33
 Job time : 23.1129 secs

Qy	20	IHGDBELFQHEKLTIPANWLFTHDSLIPACQYVTAAGQIDVTVSRQNGISRAFLN	79
Db	47	IIYDIFDIFDDEKIFGTVWABDELFGSGTIVNIGQPVVYRQKQVHJL	106
Qy	80	VCHRGKGTIVSVEAGAKGYCYGVGFGSGAGELASVFFEKOLVGSILKCKILGLKEVA	139
Db	107	RYCHRGATVCHKGAKTNSVCPYTHWSALDGLGAGVP--SPASGCGDGSGLPUSV--	164
Qy	140	YRHEATVYCYFQDEAIVPMYLDGAKYVLEFPMFGHSV--LELVGP-----PKQVIK	192
Db	165	FVEYVQIMVFAFEDQIPIZFPLGAKMILPMQAGTPIVIVGHRFRPQ-----	219
Qy	193	ANKKAPABVFDVAGVHWGTHBASLRS-----GSGTIFSSLAGNALPPFGAGLQWTSKYS	248
Db	240	-HWKQVGL--TDTAHHFVPLGSSVDEKTELEL-----FNN	257
Qy	249	GVSLWNGVSGDAGVLAPELMARFGAKQSR--LAKSICDVR-----AIRY--	293
Db	258	QGVFVLDGNGHSVWMLPVLVLELMEHTIGEPFELQAALDQHELEVRIVDA	317
Qy	294	-----SHLACTVPSNMSLKS--GVFKWVFNIDANTIVTAIVYKED--WPEULAKRIA	345
Db	318	VDSGFGMLPMLN---IACSMAPFVQIVSAVETI--HSEVITMGQGTQANVTHVIL	373
Qy	346	DSVQRTVQFAGPMSNDNMSTASQNGKYSRDLNLSGFDGVSDVDAVFPVGVG--	404
Db	374	EHFQ-----GPFQVTFDCEMERV--QNGN--AGNDVTHLARG-----PQVNT	418
Qy	405	-----KSMI--GETSVRGTFAYQ	421
Db	419	EDGLGSVDSVATGQEAAYQMK	440
RESULT 4			
US-05-252-991A-31385			
Request: 31385 Application US/09252991A			
Batch: NO 6551705			
GENERAL INFORMATION:			
APPLICANT: Marc G. Rubenfield et al.			
TITLE OF INVENTION: ANTICETIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS			
INVENTOR: Marc G. Rubenfield et al.			
FILE REFERENCE: 107156.136			
CURRENT APPLICATION NUMBER: US/09/252,991A			
PRIORITY FILING DATE: 1999-05-18			
PRIORITY FILING DATE: US 60/074,788			
PRIORITY FILING DATE: 1998-02-18			
PRIORITY APPLICATION NUMBER: US 60/094,190			
PRIORITY FILING DATE: 1998-07-27			
PRIORITY APPLICATION NUMBER: US 60/094,190			
SEQ ID NO 31385			
LENGTH: 466			
TYPE: PRT			
FUNCTION: Pseudomonas aeruginosa			
US-05-252-991A-31385			
Query Match 15.34; Score 382.5; DS4; Length 466;			
Sequence Similarity 14.74; YC; Length 466;			
Matches 120; Conservative 77; Mismatches 182; Indels 63; Gaps 18;			
Qy	23	DEILFQHEKLTIPANWLFTHDSLIPACQYVTAAGQIDVTVSRQNGISRAFLNVR	82
Db	39	REYFQHEKLTIPANWLFTHDSLIPACQYVTAAGQIDVTVSRQNGISRAFLNVR	98
Qy	83	HNGTIVSVEAGAKGYCYGVGFGSGAGELASVFFEKOLVGSILKCKILGLKEVA	140
Db	99	HJAHVIVVQSGTFCFPLACTVQGLVAVGE--YFEDFATKATKAT--AR	154
Qy	141	VESRPGTGYCFQDEA--PPLMYLDGAKYVLEFPMFGHSV--SGLGVLPKQVITKANWA	197
Db	145	LOKRVFVTHVAGSDEVDVPLADANVPLWAKQSGSLVSGSLVPGTSTVEGML	214
Qy	198	PANFVFDVAGVHWGTHBASLRS-----GSGTIFSSLAGNALPPFGAGLQW--SKYSGVNL-	253

Db 215 QNKGGL-DGHTVSTVNTVY-----NTVQVQVARGSVAAVLTKYKLGNDGDAAT 266
 QY 254 -WDQVSGV-----ADVPELMAGQAGKELNKGVDVARTVSHSL 296
 Db 267 DQWFGPANGVSTFERNWPNVAVRQVSVAVPLV-----ETCDARLMMHBL 315
 QY 297 -NCTVFNSML-TGSGVFNWINDANTVETVYAL-VEKMDPELAKRLADSVTGTG 353
 Db 316 RMLNLYSEFUDVLSQSLQVLPFLANWRTVSVQCQVGGESDAWREWRV-OEEDFN 374
 QY 354 PAGVSESDNUNMETASNGKYSRDLNLSAGFSDVGTAVTVFGKSAI--GE 410
 Db 375 VSGMGTDDVLFVREAGQAGQARLWNSDI--SRGCKGKLEGTATNSQVGLAPLTGTS 432
 QY 411 TSVRGVYQARVSNWMAEF 432
 Db 433 ITHGLGVNQANL-----WRFP 449
 RESULT 5
 US-09-328-352-7581
 ; Sequence 7581, Application US/0928352
 ; Patent No. 6551795
 ; APPLICANT: Maco J. Rubenfield et al.
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
 ; FILE REFERENCE: GTC9-032A
 ; CURRENT APPLICATION NUMBER: US/09/328.352
 ; PRIOR FILING DATE: 1999-06-04
 ; PRIOR FILING DATE: 1999-06-04
 ; SEQ ID NO 7581
 ; LENGTH: 471
 ; TYPE: PRT
 ; ORGANISM: Acinetobacter baumannii
 US-09-328-352-7581

Query Match 14.98; Score 360; DB 4; Length 471;
 Best Local Similarity 25.81; Pred. No. 4.6e-26;
 Matches 114; Conservative 69; Mismatches 181; Indels 78; Gaps 16;
 QY 23 DELFOHEKLTFAKNNLITDLSLPADQVYFANGSDIVTSRQDSSTAFANVCR 82
 Db 35 EYFDLDEHETFKVWITACHESIPNIOFTVQGGPILVSRGKGLMAYACE 94
 QY 83 HRGTLVAVGNAQGVCSYSGFSGNSGLSPFPEKOLYGLNSLCKGLKAEVAYE 142
 Db 95 ANGLATVAGAGQVTCFPPFANCSYKRLVYKVAPE-TCDFPESRSLQK-GR 152
 QY 143 SPFGHTVGCFTQEA-PLMVLGDAWVLEPWEKIS--CGLELVGPGKVTIVANKAPA 199
 Db 153 SRGVYFVBLDTQVLSDFDQVADLPDLNWNQSGTGLVYLGCHSTVTFAGKALQ 212
 QY 200 ENFYGDVATHGWTH--ASSLSGSEISFSLAGNALPPEAGQVLT--SKYSGSGVLM 254
 Db 213 ENGL-DGHTVSTVNTVYVQVQWAS-----KARLDTLYKLGSGSETD 282
 QY 255 DQKSGVSGADLV-----PELMAGQAGKELNKGVDVARTVSHSL-NCTVFNSM 306
 Db 263 DQWFGPANGVSTFERNWPNVAVRQVSVAVPLV-----ETCDARLMMHBL 315
 QY 307 L-TGSGVFNWINDANTVETVYALVEKMDPELAKRLADSVTGTGPGWESNDON 365
 Db 323 MDQSLSQKAVRVPVANKTV-----ISQCIQVWG--ES-----354
 QY 366 METASQKQVSGRSDLSLNGHGVGDYGVAVTVGKSAIGETSVRGFTVQVQV 425
 Db 385 --TARNRRIKTFEPNVSGLTPTDIL-----VEFPGKQKQARL- 394
 QY 426 SGNARPEASVTHLTKT 447
 Db 395 -BRWDISRGCCQNTYQATNS 415

RESULT 6
 US-09-252-991A-25088
 ; Sequence 25088, Application US/09252991A
 ; Patent No. 6551795
 ; APPLICANT: Maco J. Rubenfield et al.
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
 ; FILE REFERENCE: ARKUNINGOA FOR DIAGNOSTICS AND THERAPEUTICS
 ; CURRENT APPLICATION NUMBER: US/09/252.991A
 ; PRIOR FILING DATE: 1999-02-18
 ; PRIOR FILING DATE: 1998-07-27
 ; PRIOR FILING DATE: 1998-07-27
 ; SEQ ID NO 25088
 ; LENGTH: 425
 ; TYPE: PRT
 ; ORGANISM: Pseudomonas aeruginosa
 US-09-252-991A-25088
 Query Match 14.38; Score 344.5; DB 4; Length 425;
 Best Local Similarity 27.47; Pred. No. 1.2e-24;
 Matches 114; Conservative 71; Mismatches 178; Indels 53; Gaps 15;
 QY 25 ELPOHKLATFANWMLPITRSLPAGDQVYFANGMDIVTSRQDSSTAFANVCHHR 84
 Db 25 ELHRELEHETFDQSLVPAHLSRLRPSDFTIRYDGRMLIQGADQBPVAVLNACAR 84
 QY 85 GKTLAVGAGNAGVCTGSGGSGNSGLSPFPEKOLYGLNSLCKGLKAEVAYE- 143
 Db 85 GARYCAERQNSQRTCTFHTMTDHSGLGLP-DAAYQHA--OCHPELSTVREHA 141
 QY 144 -FRQYVGCFTQEAFLPVLGDAWVLEPWEKIS--CGLELVGPGKVTIVANKAPEN 201
 Db 142 VTRNFTVHYAARQSLFTYTGQADYIDLCDSAELEITFGPFHSTKANMKLAIN 201
 QY 202 FQDQVYFVTHASLRGSEISFSSLAGNALPPEAGQVNTYQSGOMOVADQVSCVH 261
 Db 202 QV-DAYHLPFANKVTLATL-----GTDPEHSHERG-BALGKGNALII 246
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 Db 247 SGPSTGCTPFTVNSPFLPFAKSLTAQFELVAVQQAARLAPNLSLTPFALIN 306
 QY 305 SKGTCGVVFNWINDANTVETVYALVEKMDPELAKRLADSVTGTGPGWESNDON 364
 Db 307 DILGLA-IRSGFTFADVAVTVAGGAFDITREARLNGLSITFGGFTVDVYE 364
 QY 345 NQBPAGKQKXQSDLSLNGHGVGDYGVAVTVGKSAIGETSVRGFTVQVQV 420
 Db 365 ILKSCQ--RAYAH-----AALQYSDFSRG--NQPATREHVEEQNGQFWAEW 407
 RESULT 7
 US-09-252-991A-17164
 ; Sequence 17164, Application US/09252991A
 ; Patent No. 6551795
 ; APPLICANT: Maco J. Rubenfield et al.
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
 ; FILE REFERENCE: ARKUNINGOA FOR DIAGNOSTICS AND THERAPEUTICS
 ; CURRENT APPLICATION NUMBER: US/09/252.991A
 ; PRIOR FILING DATE: 1999-02-18
 ; PRIOR FILING DATE: 1998-07-27
 ; PRIOR FILING DATE: 1998-07-27
 ; SEQ ID NO 17164
 ; LENGTH: 425
 ; TYPE: PRT
 ; ORGANISM: Pseudomonas aeruginosa
 US-09-252-991A-17164

APPLICANT: Hanson D., Andrew
 APPLICANT: Rathinasabapathi, Raja
 TITLE OF INVENTION: Polynucleotides Encoding Choline Monooxygenase and
 Plants Transformed Therewith
 FILE REFERENCE: UP-162
 CURRENT PILING DATE: 1997-01-08
 PRIOR APPLICATION NUMBER: US/09/004,393B
 NUMBER OF SEQ ID NOS: 6
 NUMBER OF SEQ ID NOS: 6
 PRIORITY: Patent in Ver. 2.0
 SEQ ID NO 4
 LENGTH: 446
 TYPE: PRT
 ORIGINISM: Beta vulgaris
 US-09-004-393B-4

Query Match
 Best Local Similarity 9.3%; Score 224; DB 4; Length 446;
 Best Local Similarity 27.4%; Pred. No. 5e-13;
 Matches 38; Conservative 37; Mismatches 97; Indels 20; Gaps 6;

QY 11 HSLGKQKHIGHSLELPQHELTAFPMKLPFLTHSLGILFAPKQDVTYAKMGIDIVSRON 70
 DB 99 EDALTPFTWTFATYSHLEIRFYKQVAGVSEQVKNQVFTGSLGNVYVSRGD 158
 QY 71 DQSIAPLVCHRGKQKLVSPVAKNGKPVCSYHNGKSGNSGELQSVFPKDLKSLNK 130
 DB 159 QSELRHFNVTCHRA-STLACSSGKSCVCFYHGMVYGLDLSAKA--SKATVYNDLP 215
 QY 131 KGLGKAVTVPSHFVCTGQENPLAD---YLGD-----NKLERNVRSGL 184
 DB 216 KELGLAPL-KVANGPFLILSDLSIDANADVGTEWIGKSEVDYAHAFDPLALF 274
 QY 182 LVSPGKVVTKAKKAPNVGQANTVNSKH 213
 DB 275 P-----PMECKMKVFCMDYLDSSHHVYAH 299

RESULT 11
 US-09-004-393B-2
 Sequence 2, Application US/09004393B
 Best Local Similarity 30.1%; Pred. No. 6.1e-13;
 Matches 58; Conservative 58; Mismatches 83; Indels 14; Gaps 7;
 GENERAL INFORMATION:
 APPLICANT: Hanson D., Andrew
 APPLICANT: Rathinasabapathi, Raja
 TITLE OF INVENTION: Polynucleotides Encoding Choline Monooxygenase and
 Plants Transformed Therewith
 FILE REFERENCE: UP-162
 CURRENT PILING DATE: 1997-01-08
 PRIOR APPLICATION NUMBER: US/09/004,393B
 NUMBER OF SEQ ID NOS: 6
 NUMBER OF SEQ ID NOS: 6
 PRIORITY: Patent in Ver. 2.0
 SEQ ID NO 2
 LENGTH: 439
 TYPE: PRT
 ORIGINISM: Spinacia oleracea
 US-09-004-393B-2

Query Match
 Best Local Similarity 9.3%; Score 223; DB 4; Length 439;
 Best Local Similarity 30.1%; Pred. No. 6.1e-13;
 Matches 58; Conservative 58; Mismatches 83; Indels 14; Gaps 7;

QY 27 FQELKTFPARKMLFTLHSLGILFAPKQDVTYAKMGIDIVSRONQDSTFANVYCHURCK 86
 DB 108 YSHLEIRFYKQVAGVSEQVKNQVFTGSLGNVYVSRGDGKPVHAFVCTHRA- 166
 QY 87 TAYSVAGKAVCSYHNGKSGNSGELQSVFPKDLKSLNKVLKLVARVFEG 146
 DB 167 SLACSSGKSCVCFYHGMVYGLDLSAKA--SKATVYNDLP-KVANGP 223

QY 147 FYVCTGQDAPFLMD---YLGDANVLPMPHNS--GQELVGPQKVVTKAKKAPAE 200
 DB 224 FYVLSHLSREBGDVGTEWIGTSA--SDYKAHAFHSLQFI-HRSEFPMESNKNFSD 279
 QY 201 NFVGDANVGHVCH 213
 DB 280 NYLDSSHHVYAH 292

RESULT 12
 US-08-810-009-19
 Sequence 19, Application US/08810009
 Best Local Similarity 7.7%; Score 185; DB 3; Length 35;
 Matches 33; Conservative 33; Mismatches 1; Indels 0; Gaps 0;
 GENERAL INFORMATION:
 APPLICANT: Briggs, Steven P.
 APPLICANT: Johal, Gurmukh S.
 TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
 CELL DEATH AND DISEASE RESISTANCE IN PLANTS
 NUMBER OF SEQUENCES: 65
 CORRESPONDENCE ADDRESS:
 STREET: P.O. Drawer 34009
 CITY: Charlotte
 STATE: NC, 6211437th Carolina
 COUNTRY: USA
 ZIP: 28234
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 SOFTWARE: SYSDRAW 4.2, SYSDRAW DOS
 SOFTWARE: Patent in Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/810,009
 PRIORITY: Patent in Release #1.0, Version #1.30
 CLASSIFICATION: 800
 ATTORNEY/AGENT INFORMATION:
 NAME: Spruill, W. Murray
 REGISTRATION NUMBER: 32,943
 ADDRESS: 10000 W. Highway 718-4
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 919-881-3140
 TELEFAX: 919-881-3175
 INFORMATION FOR SEQ ID NO: 19:
 LENGTH: 35 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-810-009-19

Query Match
 Best Local Similarity 7.7%; Score 185; DB 3; Length 35;
 Best Local Similarity 94.3%; Pred. No. 5.6e-11;
 Matches 33; Conservative 33; Mismatches 1; Indels 0; Gaps 0;

QY 79 NVCBHGKTVSYKAGNAGKGVCSYHNGKSGNSK 113
 DB 1 NVCHRGKTVSYKAGNAGKGVCSYHNGKSGNSK 35

RESULT 13
 US-08-810-009-20
 Sequence 20, Application US/08810009
 Patent No. 6211437
 APPLICANT: Briggs, Steven P.
 APPLICANT: Johal, Gurmukh S.
 APPLICANT: Gray, John
 TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
 CELL DEATH AND DISEASE RESISTANCE IN PLANTS

1 NUMBER OF SEQUENCES: 65
 2 CORRESPONDENCE ADDRESS:
 3 ADDRESSEE: BELL, SELTZER, PARK & GIBSON
 4 CITY: Charlotte
 5 STATE: No. 6211437th Carolina
 6 COUNTRY: USA
 7
 8 COMPUTER READABLE FORM:
 9 MEDIUM TYPE: Floppy disk
 10 OPERATING SYSTEM: IBM PC compatible
 11 OPERATING SYSTEM: FC-DOS/MS-DOS
 12 SERIAL APPLICATION DATA: Release #1.0, Version #1.30
 13 CURRENT APPLICATION NUMBER: US/08/810,009
 14 FILING DATE: 04-MAR-1997
 15 FILING DATE: 04-MAR-1997
 16 ATTORNEY/AGENT INFORMATION:
 17 NAME: Sprull, W. Murray
 18 REGISTRATION NUMBER: 32,943
 19 TELECOMMUNICATIONS INFORMATION:
 20 TELEPHONE: 919-881-3140
 21 TELEFAX: 919-881-3175
 22 TELETEXT: 575102
 23 INFORMATION: ID NO. 20:
 24 SEQUENCE CHARACTERISTICS:
 25 LENGTH: 35 amino acids
 26 TYPE: amino acid
 27 TOPOLOGY: linear
 28 MOLECULE TYPE: protein
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 30 Query Match 7.04; Score 174; DB 3; Length 35;
 31 Best Local Similarity 85.74; Prod No. 6.41;
 32 Matches 30; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
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 34 QY 79 NVCBHGKTVLVAENAGNKPVCVGHGVSQNGK 113
 35 DB 1 NVCRHGKTLVAENAGNKPVCVGHGVSQNGK 35
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 37 RESULT 14
 38 US-08-810-009-21
 39 Sequence 21, Application US/08810009
 40 Patent No. 6211437
 41 ADDRESSEE: GIBSON, JOHN
 42 CITY: Charlotte
 43 STATE: No. 6211437th Carolina
 44 COUNTRY: USA
 45
 46 COMPUTER READABLE FORM:
 47 MEDIUM TYPE: Floppy disk
 48 OPERATING SYSTEM: IBM PC compatible
 49 OPERATING SYSTEM: FC-DOS/MS-DOS
 50 SERIAL APPLICATION DATA: Release #1.0, Version #1.30
 51 CURRENT APPLICATION NUMBER: US/08/810,009
 52 FILING DATE: 04-MAR-1997
 53 FILING DATE: 04-MAR-1997
 54 ATTORNEY/AGENT INFORMATION:
 55 NAME: Sprull, W. Murray
 56 REGISTRATION NUMBER: 32,943

1 REFERENCE/JOINT NUMBER: 5718-4
 2 TELECOMMUNICATIONS INFORMATION:
 3 TELEPHONE: 919-881-3140
 4 TELEFAX: 919-881-3175
 5 TELETEXT: 575102
 6 INFORMATION: ID NO. 21:
 7 SEQUENCE CHARACTERISTICS:
 8 LENGTH: 35 amino acids
 9 TYPE: amino acid
 10 TOPOLOGY: linear
 11 MOLECULE TYPE: protein
 12
 13 US-08-810-009-21
 14 Query Match 7.04; Score 169; DB 3; Length 35;
 15 Best Local Similarity 80.08; Prod No. 2.46-06;
 16 Matches 28; Conservative 3; Mismatches 4; Indels 0; Gaps 0;
 17
 18 QY 79 NVCBHGKTVLVAENAGNKPVCVGHGVSQNGK 113
 19 DB 1 NVCRHGKTLVAENAGNKPVCVGHGVSQNGK 35
 20
 21 RESULT 15
 22 US-09-252-991A-27100
 23 Sequence 27100, Application US/09252991A
 24 Patent No. 6551795
 25 ADDRESSEE: RUBENFELD, J.
 26 CITY: New York
 27 STATE: New York
 28 COUNTRY: USA
 29
 30 TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
 31 TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
 32 CURRENT APPLICATION NUMBER: US/09/252,991A
 33 PRIOR FILING DATE: 1999-02-18
 34 PRIOR FILING DATE: 1998-07-18
 35 PRIOR FILING DATE: 1998-02-18
 36 PRIOR FILING DATE: 1998-07-27
 37 NUMBER OF SEQ ID NOS: 33142
 38 SEQ ID NO 27100
 39 LENGTH: 629
 40 TOPOLOGY: linear
 41 ORGANISM: Pseudomonas aeruginosa
 42
 43 US-09-252-991A-27100
 44 Query Match 6.04; Score 143.5; DB 4; Length 629;
 45 Best Local Similarity 24.31; Prod No. 3.6e-05;
 46 Matches 65; Conservative 41; Mismatches 103; Indels 59; Gaps 13;
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 48 QY 4 NKKTLVSSGSSQHLI-HNDEBELFQHLNLTIPAN-WLFTLHELTPAIDVYVIAOM 59
 49 DB 247 SNLFPPVQKGLTWKSLAHNHCLOKREDPTFPPNNATVACTDELAKP---LGRRI 303
 50 QY 60 GIDVIVRQGVNVSIFAFANLCHURK--TLVSTFAGNKGFCVSTGHWGSGEGLQSV 117
 51 DB 304 CDEPWFVTRGEGVLAEDFCFHRGSLGSLFVDEG---VLVCGHGLAMEDQRTAM 360
 52 QY 118 PFEDKYGSLNKECLGLEVAR--VESFPGTY--GCFQDQRPIMYVIGDAWYLP 172
 53 DB 361 P-----GQVGFRCFFPFGQESGFWWFGSGADALITRL---EHAUSD 407
 54 QY 173 MFRHSGGLBNGPKGVKIVKANKAPNFVDVHGVHTASSL-----E 218
 55 DB 408 DWAYGGSL-----YHLCUTLMTLMDL-DLSTFSTVWSSSGKDEIDNAPTVFE 458
 56 QY 219 SGESIFSLGNALPFL-----EGAGL 240
 57 DB 459 GDEVTSHRQNVNAPFFRWALKGNGL 486
 58
 59 Search completed: December 9, 2003, 15:45:55
 60 Job Time : 13 secs

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OM protein - protein search, using sw model
Run on: December 9, 2003, 15:44:14, Search time 22.1429 Seconds

Title: US-09-843-250-34
Perfect score: 2409
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	2409	100.0	449	11 US-09-843-250-34	Sequence 31, Appl
2	2404	99.8	449	11 US-09-843-250-34	Sequence 14, Appl
3	2404	99.8	449	11 US-09-843-250-14	Sequence 15, Appl
4	2404	99.8	449	11 US-09-843-250-15	Sequence 32, Appl
5	2404	99.8	449	11 US-09-843-250-35	Sequence 36, Appl
6	2403	99.8	449	11 US-09-843-250-35	Sequence 36, Appl
7	2403	99.8	449	11 US-09-843-250-36	Sequence 32, Appl
8	2402	99.7	449	11 US-09-843-250-32	Sequence 32, Appl
9	2402	99.7	449	11 US-09-843-250-32	Sequence 32, Appl
10	2402	99.7	449	11 US-09-843-250-59	Sequence 16, Appl
11	2402	99.7	449	11 US-09-843-250-16	Sequence 17, Appl
12	2399	99.6	449	11 US-09-843-250-17	Sequence 18, Appl
13	2394	97.4	449	11 US-09-843-250-17	Sequence 18, Appl
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Sequence 17, Appl
Sequence 18, Appl
Sequence 18, Appl
Sequence 18, Appl

ALIGNMENTS

RESULT 1
US-09-843-250-34
Sequence 31, Application US/09843250
Publication No. US20030022335A1

GENERAL INFORMATION:
APPLICANT: Paralep, R.
APPLICANT: Paralep, R.
APPLICANT: Remick, S.

APPLICANT: Lee, K.
TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
CURRENT APPLICATION NUMBER: US/09/843,250
CURRENT FILING DATE: 2001-04-26

PRIOR APPLICATION NUMBER: PCT/US99/25079
PRIORITY DATE: 1998-10-26
PRIOR APPLICATION NUMBER: US 60/105,575
PRIOR FILING DATE: 1998-10-26

NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSeq for Windows Version 4.0
SEQUENCE LENGTH: 449
TYPE: PRT

ORGANISM: Artificial Sequence
OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:29.
US-09-843-250-34

Query Match: 100.0%; Score 2409; DB 11; Length 449;
Sequence Similarity: 100.0%; Pred. No. 5e-226;
Matches 449; Conservative 0; Mismatches 0; Gaps 0;

1 MYNNKLVNLSGSLQGLHGFQELKLTFAFMMLFTHDSLPFGVVTAKG 60
DB 1 MYNNKLVNLSGSLQGLHGFQELKLTFAFMMLFTHDSLPFGVVTAKG 60

61 IDEIVISQKQDSIRAFVACRGKTLVSVAGNAGKFCVSHGFGSGSLQSVFFE 120
DB 61 IDEIVISQKQDSIRAFVACRGKTLVSVAGNAGKFCVSHGFGSGSLQSVFFE 120

Db 361 DNDNMETASQNGKYSQSLHSGDELFQHELTIPANMLFTHDSLIIPADQVYTMNG 420
 QY 421 QANVSSNNAEFHSASTHTELTKTDDR 449
 Db 421 QANVSSNNAEFHSASTHTELTKTDDR 449

RESULT 4

US-09-843-250-15 Application US/09843250
 ; Sequence 35, Application US/09843250
 ; PUBLIC RELEASE NO US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Parales, R.
 ; APPLICANT: Gibbon, D.
 ; APPLICANT: Lee, K.
 ; APPLICANT: Lee, K.
 ; TITLE OF INVENTION: NO. US20030022335A1el naphthalene dioxygenase and methods for the
 ; FILE REFERENCE: 875-06052 US/09/843,250
 ; CURRENT FILING DATE: 2001-04-26
 ; PRIOR APPLICATION NUMBER: PCT/US99/25079
 ; PRIOR FILING DATE: 1999-10-26 40/105,575
 ; PRIOR FILING DATE: 1998-10-26
 ; NUMBER OF SEQ ID NOS: 65
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 33
 ; LENGTH: 449
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FUNCTION: N/A
 ; REMARKS: INFORMATION: A polypeptide encoded by SEQ ID NO:4.
 ; US-09-843-250-15

Query Match 99.8%; Score 2404; DB 11; Length 449;
 Masc Local Similarity 99.8%; Fract. Pos. 5e-225;
 Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MYNNKILVSSGSLGQHLHSGDELFQHELTIPANMLFTHDSLIIPADQVYTMNG 60
 Db 1 MYNNKILVSSGSLGQHLHSGDELFQHELTIPANMLFTHDSLIIPADQVYTMNG 60
 QY 61 IDYIVSNGSGIRATLVCHRGKTVSVRGNAGQFVCSHGQFSGNGSLQVPE 120
 Db 61 IDYIVSNGSGIRATLVCHRGKTVSVRGNAGQFVCSHGQFSGNGSLQVPE 120
 QY 121 KDVGSLNKKCLAEKAVRVSFGFIYCTDQAPPLMDYADAWLPMFHSGL 180
 Db 121 KDVGSLNKKCLAEKAVRVSFGFIYCTDQAPPLMDYADAWLPMFHSGL 180
 QY 181 ELVPGPKVYIKNMNAFPAFVGDVHGVTHASSLGSFSSLAGNALPPFSG 240
 Db 181 ELVPGPKVYIKNMNAFPAFVGDVHGVTHASSLGSFSSLAGNALPPFSG 240
 QY 241 QMTSKYSGGVLMQTSVHSLVPSLMAFGAKQLRNLKIGVRYALYSHLACTY 300
 Db 241 QMTSKYSGGVLMQTSVHSLVPSLMAFGAKQLRNLKIGVRYALYSHLACTY 300
 QY 301 FPNMSLTCGVFKWPIIDANTETWYALVEKMPDLRLADSVKRTGPAFMS 360
 Db 301 FPNMSLTCGVFKWPIIDANTETWYALVEKMPDLRLADSVKRTGPAFMS 360
 QY 361 DNDNMETASQNGKYSQSLHSGDELFQHELTIPANMLFTHDSLIIPADQVYTMNG 420
 Db 361 DNDNMETASQNGKYSQSLHSGDELFQHELTIPANMLFTHDSLIIPADQVYTMNG 420
 QY 421 QANVSSNNAEFHSASTHTELTKTDDR 449
 Db 421 QANVSSNNAEFHSASTHTELTKTDDR 449

RESULT 5

US-09-843-250-35 Application US/09843250
 ; Sequence 35, Application US/09843250
 ; PUBLIC RELEASE NO US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Parales, R.
 ; APPLICANT: Gibbon, D.
 ; APPLICANT: Lee, K.
 ; APPLICANT: Lee, K.
 ; TITLE OF INVENTION: NO. US20030022335A1el naphthalene dioxygenase and methods for the

US-09-843-250-33 Application US/09843250
 ; Sequence 33, Application US/09843250
 ; PUBLIC RELEASE NO US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Parales, R.
 ; APPLICANT: Gibbon, D.
 ; APPLICANT: Lee, K.
 ; APPLICANT: Lee, K.
 ; TITLE OF INVENTION: NO. US20030022335A1el naphthalene dioxygenase and methods for the
 ; FILE REFERENCE: 875-06052 US/09/843,250
 ; CURRENT FILING DATE: 2001-04-26
 ; PRIOR APPLICATION NUMBER: PCT/US99/25079
 ; PRIOR FILING DATE: 1999-10-26 40/105,575
 ; PRIOR FILING DATE: 1998-10-26
 ; NUMBER OF SEQ ID NOS: 65
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 33
 ; LENGTH: 449
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FUNCTION: N/A
 ; REMARKS: INFORMATION: A polypeptide encoded by SEQ ID NO:28.
 ; US-09-843-250-33

Query Match 99.8%; Score 2404; DB 11; Length 449;
 Masc Local Similarity 99.8%; Fract. Pos. 5e-225;
 Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MYNNKILVSSGSLGQHLHSGDELFQHELTIPANMLFTHDSLIIPADQVYTMNG 60
 Db 1 MYNNKILVSSGSLGQHLHSGDELFQHELTIPANMLFTHDSLIIPADQVYTMNG 60
 QY 61 IDYIVSNGSGIRATLVCHRGKTVSVRGNAGQFVCSHGQFSGNGSLQVPE 120
 Db 61 IDYIVSNGSGIRATLVCHRGKTVSVRGNAGQFVCSHGQFSGNGSLQVPE 120
 QY 121 KDVGSLNKKCLAEKAVRVSFGFIYCTDQAPPLMDYADAWLPMFHSGL 180
 Db 121 KDVGSLNKKCLAEKAVRVSFGFIYCTDQAPPLMDYADAWLPMFHSGL 180
 QY 181 ELVPGPKVYIKNMNAFPAFVGDVHGVTHASSLGSFSSLAGNALPPFSG 240
 Db 181 ELVPGPKVYIKNMNAFPAFVGDVHGVTHASSLGSFSSLAGNALPPFSG 240
 QY 241 QMTSKYSGGVLMQTSVHSLVPSLMAFGAKQLRNLKIGVRYALYSHLACTY 300
 Db 241 QMTSKYSGGVLMQTSVHSLVPSLMAFGAKQLRNLKIGVRYALYSHLACTY 300
 QY 301 FPNMSLTCGVFKWPIIDANTETWYALVEKMPDLRLADSVKRTGPAFMS 360
 Db 301 FPNMSLTCGVFKWPIIDANTETWYALVEKMPDLRLADSVKRTGPAFMS 360
 QY 361 DNDNMETASQNGKYSQSLHSGDELFQHELTIPANMLFTHDSLIIPADQVYTMNG 420
 Db 361 DNDNMETASQNGKYSQSLHSGDELFQHELTIPANMLFTHDSLIIPADQVYTMNG 420
 QY 421 QANVSSNNAEFHSASTHTELTKTDDR 449
 Db 421 QANVSSNNAEFHSASTHTELTKTDDR 449

RESULT 6

US-09-843-250-35 Application US/09843250
 ; Sequence 35, Application US/09843250
 ; PUBLIC RELEASE NO US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Parales, R.
 ; APPLICANT: Gibbon, D.
 ; APPLICANT: Lee, K.
 ; APPLICANT: Lee, K.
 ; TITLE OF INVENTION: NO. US20030022335A1el naphthalene dioxygenase and methods for the

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; FILE REFERENCE: 875.006US2
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1998-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 35
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:30.
US-09-843-250-35

Query Match          99.8%; Score 2403; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 1.9e-225; Indels 0; Gaps 0;
Matches 448; Conservative 0; Mismatches 1;

QY 1 MYNNKILVSRGSGQHLHGHDELPFQELKTIIFARNMLFTHDSLIIPAGQVYVYANG 60
DB 1 MYNNKILVSRGSGQHLHGHDELPFQELKTIIFARNMLFTHDSLIIPAGQVYVYANG 60
QY 61 IDBIVSRQDQSTAFIPLVCHRGKTLVSEAGNAGFCVSTHGSGNGELQVPE 120
DB 61 IDBIVSRQDQSTAFIPLVCHRGKTLVSEAGNAGFCVSTHGSGNGELQVPE 120
QY 121 KLVGSELNKKLGKLVKAVVESFGFTGCFQDAPPLMDLGDAAITLPMFHSIGGL 180
DB 121 KLVGSELNKKLGKLVKAVVESFGFTGCFQDAPPLMDLGDAAITLPMFHSIGGL 180
QY 181 ELVPGPGVITANWKAPEAFVGDYHVGWHTHASSLGSGSIFSSLAGNALPPEGAGL 240
DB 181 ELVPGPGVITANWKAPEAFVGDYHVGWHTHASSLGSGSIFSSLAGNALPPEGAGL 240
QY 241 QMTSKYSGSGVGLMDGTVSRHADIPELMAFGAKQERLNKEIGDVARIVESHLCV 300
DB 241 QMTSKYSGSGVGLMDGTVSRHADIPELMAFGAKQERLNKEIGDVARIVESHLCV 300
QY 301 FPNNSMLTCSGVFKVWNPIDANTFWYTAIVKQMPDLKRLADSVQRTIGAPGWS 360
DB 301 FPNNSMLTCSGVFKVWNPIDANTFWYTAIVKQMPDLKRLADSVQRTIGAPGWS 360
QY 361 DDNNMETASQNGKKYQSRSDLLSNLGFBDYGDVATPGVGNLSAGTSYSGFYAY 420
DB 361 DDNNMETASQNGKKYQSRSDLLSNLGFBDYGDVATPGVGNLSAGTSYSGFYAY 420
QY 421 QNVSSNNALFTHASSTHETLTKTDR 449
DB 421 QNVSSNNALFTHASSTHETLTKTDR 449

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RESULT 7
US-09-843-250-36
; Sequence 36, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Parales, R.
; APPLICANT: Gibson, D.
; APPLICANT: Leach, K. S.
; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.006US2
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1998-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
US-09-843-250-37

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; SEQ ID NO 36
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:31.
US-09-843-250-36

Query Match          99.8%; Score 2403; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 1.9e-225; Indels 0; Gaps 0;
Matches 448; Conservative 0; Mismatches 1;

QY 1 MYNNKILVSRGSGQHLHGHDELPFQELKTIIFARNMLFTHDSLIIPAGQVYVYANG 60
DB 1 MYNNKILVSRGSGQHLHGHDELPFQELKTIIFARNMLFTHDSLIIPAGQVYVYANG 60
QY 61 IDBIVSRQDQSTAFIPLVCHRGKTLVSEAGNAGFCVSTHGSGNGELQVPE 120
DB 61 IDBIVSRQDQSTAFIPLVCHRGKTLVSEAGNAGFCVSTHGSGNGELQVPE 120
QY 121 KLVGSELNKKLGKLVKAVVESFGFTGCFQDAPPLMDLGDAAITLPMFHSIGGL 180
DB 121 KLVGSELNKKLGKLVKAVVESFGFTGCFQDAPPLMDLGDAAITLPMFHSIGGL 180
QY 181 ELVPGPGVITANWKAPEAFVGDYHVGWHTHASSLGSGSIFSSLAGNALPPEGAGL 240
DB 181 ELVPGPGVITANWKAPEAFVGDYHVGWHTHASSLGSGSIFSSLAGNALPPEGAGL 240
QY 241 QMTSKYSGSGVGLMDGTVSRHADIPELMAFGAKQERLNKEIGDVARIVESHLCV 300
DB 241 QMTSKYSGSGVGLMDGTVSRHADIPELMAFGAKQERLNKEIGDVARIVESHLCV 300
QY 301 FPNNSMLTCSGVFKVWNPIDANTFWYTAIVKQMPDLKRLADSVQRTIGAPGWS 360
DB 301 FPNNSMLTCSGVFKVWNPIDANTFWYTAIVKQMPDLKRLADSVQRTIGAPGWS 360
QY 361 DDNNMETASQNGKKYQSRSDLLSNLGFBDYGDVATPGVGNLSAGTSYSGFYAY 420
DB 361 DDNNMETASQNGKKYQSRSDLLSNLGFBDYGDVATPGVGNLSAGTSYSGFYAY 420
QY 421 QNVSSNNALFTHASSTHETLTKTDR 449
DB 421 QNVSSNNALFTHASSTHETLTKTDR 449

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RESULT 8
US-09-843-250-26
; Sequence 26, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Parales, R.
; APPLICANT: Gibson, D.
; APPLICANT: Reenick, S.
; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.006US2
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1998-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 26
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Pseudomonas sp.
US-09-843-250-26

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Query Match          99.7%; Score 2402; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 2.4e-225; Indels 0; Gaps 0;
Matches 448; Conservative 0; Mismatches 1;

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QY 1 MYNNKVLVSSGLSQHLLHGBELFQHEKLTIFARNMLFLTHDSLIIPAGDYVTAKG 60
DB 1 MYNNKVLVSSGLSQHLLHGBELFQHEKLTIFARNMLFLTHDSLIIPAGDYVTAKG 60
QY 61 IDIVTVSRONGSITAFALNVCHRGKTLVSVEAGNAGFVCSYHGFGSNGELQSVFPE 120
DB 61 IDIVTVSRONGSITAFALNVCHRGKTLVSVEAGNAGFVCSYHGFGSNGELQSVFPE 120
QY 121 KDLVGVSNKLCGLGLKAVVARSFHGFIYGCPCDQAPPLADYLDAAVYLPWFHPSGCL 180
DB 121 KDLVGVSNKLCGLGLKAVVARSFHGFIYGCPCDQAPPLADYLDAAVYLPWFHPSGCL 180
QY 241 QMTSGKSGMVLMDGYSVTHSDADVPELMALFGQKGRLNKEIGDVRARYVASHLACTV 300
DB 241 QMTSGKSGMVLMDGYSVTHSDADVPELMALFGQKGRLNKEIGDVRARYVASHLACTV 300
QY 361 DNDNMETASQNKYKQSRSDLLSNGFGBDYGDVATFQVWKSALGTSYVGFTRAY 420
DB 361 DNDNMETASQNKYKQSRSDLLSNGFGBDYGDVATFQVWKSALGTSYVGFTRAY 420
QY 421 QNVVSSSNWAEFHASSTHWTLETKTDDR 449
DB 421 QNVVSSSNWAEFHASSTHWTLETKTDDR 449

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RESULT 9
; US-09-843-250-32
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Parales, R.
; APPLICANT: Gibson, S.
; APPLICANT: Resnick, S.
; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875 006US2 US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 32
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:27.
;
; BEST LOCAL SIMILARITY
; Matches 449; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
;
; US-09-843-250-32

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QY 1 MYNNKVLVSSGLSQHLLHGBELFQHEKLTIFARNMLFLTHDSLIIPAGDYVTAKG 60
DB 1 MYNNKVLVSSGLSQHLLHGBELFQHEKLTIFARNMLFLTHDSLIIPAGDYVTAKG 60
QY 61 IDIVTVSRONGSITAFALNVCHRGKTLVSVEAGNAGFVCSYHGFGSNGELQSVFPE 120
DB 61 IDIVTVSRONGSITAFALNVCHRGKTLVSVEAGNAGFVCSYHGFGSNGELQSVFPE 120
QY 121 KDLVGVSNKLCGLGLKAVVARSFHGFIYGCPCDQAPPLADYLDAAVYLPWFHPSGCL 180
DB 121 KDLVGVSNKLCGLGLKAVVARSFHGFIYGCPCDQAPPLADYLDAAVYLPWFHPSGCL 180
QY 241 QMTSGKSGMVLMDGYSVTHSDADVPELMALFGQKGRLNKEIGDVRARYVASHLACTV 300
DB 241 QMTSGKSGMVLMDGYSVTHSDADVPELMALFGQKGRLNKEIGDVRARYVASHLACTV 300

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```

QY 121 KDLVGVSNKLCGLGLKAVVARSFHGFIYGCPCDQAPPLADYLDAAVYLPWFHPSGCL 180
DB 121 KDLVGVSNKLCGLGLKAVVARSFHGFIYGCPCDQAPPLADYLDAAVYLPWFHPSGCL 180
QY 181 ELVGPFGKVTYKAWKAPAFNVDYATVGMTHASSELGESSITSSLAGNALPPFGAGL 240
DB 181 ELVGPFGKVTYKAWKAPAFNVDYATVGMTHASSELGESSITSSLAGNALPPFGAGL 240
QY 241 QMTSGKSGMVLMDGYSVTHSDADVPELMALFGQKGRLNKEIGDVRARYVASHLACTV 300
DB 241 QMTSGKSGMVLMDGYSVTHSDADVPELMALFGQKGRLNKEIGDVRARYVASHLACTV 300
QY 301 FPNNSMTCSGVFKVWPIQDANTTETVTAIVYKQWDFHPSGRLASVQRTTGPAGWFS 360
DB 301 FPNNSMTCSGVFKVWPIQDANTTETVTAIVYKQWDFHPSGRLASVQRTTGPAGWFS 360
QY 361 DNDNMETASQNKYKQSRSDLLSNGFGBDYGDVATFQVWKSALGTSYVGFTRAY 420
DB 361 DNDNMETASQNKYKQSRSDLLSNGFGBDYGDVATFQVWKSALGTSYVGFTRAY 420
QY 421 QNVVSSSNWAEFHASSTHWTLETKTDDR 449
DB 421 QNVVSSSNWAEFHASSTHWTLETKTDDR 449

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RESULT 10
; US-09-843-250-38
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Parales, R.
; APPLICANT: Gibson, S.
; APPLICANT: Resnick, S.
; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875 006US2 US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: FCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 38
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:56.
;
; BEST LOCAL SIMILARITY
; Matches 449; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
;
; US-09-843-250-38

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```

QY 1 MYNNKVLVSSGLSQHLLHGBELFQHEKLTIFARNMLFLTHDSLIIPAGDYVTAKG 60
DB 1 MYNNKVLVSSGLSQHLLHGBELFQHEKLTIFARNMLFLTHDSLIIPAGDYVTAKG 60
QY 61 IDIVTVSRONGSITAFALNVCHRGKTLVSVEAGNAGFVCSYHGFGSNGELQSVFPE 120
DB 61 IDIVTVSRONGSITAFALNVCHRGKTLVSVEAGNAGFVCSYHGFGSNGELQSVFPE 120
QY 121 KDLVGVSNKLCGLGLKAVVARSFHGFIYGCPCDQAPPLADYLDAAVYLPWFHPSGCL 180
DB 121 KDLVGVSNKLCGLGLKAVVARSFHGFIYGCPCDQAPPLADYLDAAVYLPWFHPSGCL 180
QY 181 ELVGPFGKVTYKAWKAPAFNVDYATVGMTHASSELGESSITSSLAGNALPPFGAGL 240
DB 181 ELVGPFGKVTYKAWKAPAFNVDYATVGMTHASSELGESSITSSLAGNALPPFGAGL 240
QY 241 QMTSGKSGMVLMDGYSVTHSDADVPELMALFGQKGRLNKEIGDVRARYVASHLACTV 300
DB 241 QMTSGKSGMVLMDGYSVTHSDADVPELMALFGQKGRLNKEIGDVRARYVASHLACTV 300

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Db 241 QMTKSYGSGMGLMDGTGSGVSDLAUVELMAFGAKGRLEINELGDVARIYSHLNTV 300
 Qy 301 FPNNSKTCGCVKFWNFIDANTTWTVAIVKQMPEDKRLAUSVQRTYGPAGPWS 360
 Db 301 FPNNSKTCGCVKFWNFIDANTTWTVAIVKQMPEDKRLAUSVQRTYGPAGPWS 360
 Qy 361 FPNNSKTCGCVKFWNFIDANTTWTVAIVKQMPEDKRLAUSVQRTYGPAGPWS 360
 Db 361 DDNNMETASQNGKTKQSDLSLNGSGEDVYGDVATFVGVKSAIGSTGTFPAY 420
 Qy 361 DDNNMETASQNGKTKQSDLSLNGSGEDVYGDVATFVGVKSAIGSTGTFPAY 420
 Db 361 DDNNMETASQNGKTKQSDLSLNGSGEDVYGDVATFVGVKSAIGSTGTFPAY 420
 Qy 421 QAVSSSWNAEPFASSTWHTLTKTDR 449
 Db 421 QAVSSSWNAEPFASSTWHTLTKTDR 449

RESULT 11
 / Sequence 59, Application US/09843250
 / Publication No. US20030022335A1
 / GENERAL INFORMATION:
 / APPLICANT: Paralee, R.
 / APPLICANT: Gabsen, D.
 / APPLICANT: Renick, S.
 / APPLICANT: Lee, K.
 / TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
 / FILING DATE: 1998-10-26
 / CURRENT APPLICATION NUMBER: US/09/843,250
 / CURRENT FILING DATE: 2001-04-26
 / PRIOR APPLICATION NUMBER: PCT/US99/25079
 / PRIOR FILING DATE: 1999-10-26
 / PRIOR APPLICATION NUMBER: US 60/105,575
 / NUMBER OF SEQ ID NOS: 65
 / SOFTWARE: SeqSeq for Windows Version 4.0
 / SEQ ID NO: 449
 / LENGTH: 449
 / TYPE: PRT
 / ORGANISM: Artificial Sequence
 / OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:57.
 / OTHER 843-250-59

Query Match 99.7%; Score 2402; DB 11; Length 449;
 / Local Similarity 99.6%; Pred. No. 4.7e-225;
 / Matches 447; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Qy 1 MYNNKLIVSSGLSKHLHDSBELFOBELTIFARNMLFTHSLIPAGDYVYVARG 60
 Db 1 MYNNKLIVSSGLSKHLHDSBELFOBELTIFARNMLFTHSLIPAGDYVYVARG 60
 Qy 61 IDTVISQNDQSTRAFLNCHURKTLVSVEAGNAGFVCSYHGWSNGELQSVPE 120
 Db 61 IDTVISQNDQSTRAFLNCHURKTLVSVEAGNAGFVCSYHGWSNGELQSVPE 120
 Qy 121 KLVGSLINKKCLGKLEVARVSEFPGTGYCQDAPPLMDYLDGAATYLRPMFHSGL 180
 Db 121 KLVGSLINKKCLGKLEVARVSEFPGTGYCQDAPPLMDYLDGAATYLRPMFHSGL 180
 Qy 181 ELVGPFGKVIKANWKAPEINFGDAVHGWHTHSLSSGESIFSLAGNALPPEGGL 240
 Db 181 ELVGPFGKVIKANWKAPEINFGDAVHGWHTHSLSSGESIFSLAGNALPPEGGL 240
 Qy 241 QMTKSYGSGMGLMDGTGSGVSDLAUVELMAFGAKGRLEINELGDVARIYSHLNTV 300
 Db 241 QMTKSYGSGMGLMDGTGSGVSDLAUVELMAFGAKGRLEINELGDVARIYSHLNTV 300
 Qy 301 FPNNSKTCGCVKFWNFIDANTTWTVAIVKQMPEDKRLAUSVQRTYGPAGPWS 360
 Db 301 FPNNSKTCGCVKFWNFIDANTTWTVAIVKQMPEDKRLAUSVQRTYGPAGPWS 360
 Qy 361 DDNNMETASQNGKTKQSDLSLNGSGEDVYGDVATFVGVKSAIGSTGTFPAY 420
 Db 361 DDNNMETASQNGKTKQSDLSLNGSGEDVYGDVATFVGVKSAIGSTGTFPAY 420
 Qy 421 QAVSSSWNAEPFASSTWHTLTKTDR 449
 Db 421 QAVSSSWNAEPFASSTWHTLTKTDR 449

Db 361 DDNNMETASQNGKTKQSDLSLNGSGEDVYGDVATFVGVKSAIGSTGTFPAY 420
 Qy 421 QAVSSSWNAEPFASSTWHTLTKTDR 449
 Db 421 QAVSSSWNAEPFASSTWHTLTKTDR 449
 RESULT 12
 / Sequence 59, Application US/09843250
 / Publication No. US20030022335A1
 / GENERAL INFORMATION:
 / APPLICANT: Paralee, R.
 / APPLICANT: Gabsen, D.
 / APPLICANT: Renick, S.
 / APPLICANT: Lee, K.
 / TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
 / FILING DATE: 1998-10-26
 / CURRENT APPLICATION NUMBER: US/09/843,250
 / CURRENT FILING DATE: 2001-04-26
 / PRIOR APPLICATION NUMBER: PCT/US99/25079
 / PRIOR FILING DATE: 1999-10-26
 / PRIOR APPLICATION NUMBER: US 60/105,575
 / NUMBER OF SEQ ID NOS: 65
 / SOFTWARE: SeqSeq for Windows Version 4.0
 / SEQ ID NO: 449
 / LENGTH: 449
 / TYPE: PRT
 / ORGANISM: Artificial Sequence
 / OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:5.
 / OTHER 843-250-16

Query Match 99.6%; Score 2399; DB 11; Length 449;
 / Local Similarity 99.6%; Pred. No. 4.7e-225;
 / Matches 447; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
 Qy 1 MYNNKLIVSSGLSKHLHDSBELFOBELTIFARNMLFTHSLIPAGDYVYVARG 60
 Db 1 MYNNKLIVSSGLSKHLHDSBELFOBELTIFARNMLFTHSLIPAGDYVYVARG 60
 Qy 61 IDTVISQNDQSTRAFLNCHURKTLVSVEAGNAGFVCSYHGWSNGELQSVPE 120
 Db 61 IDTVISQNDQSTRAFLNCHURKTLVSVEAGNAGFVCSYHGWSNGELQSVPE 120
 Qy 121 KLVGSLINKKCLGKLEVARVSEFPGTGYCQDAPPLMDYLDGAATYLRPMFHSGL 180
 Db 121 KLVGSLINKKCLGKLEVARVSEFPGTGYCQDAPPLMDYLDGAATYLRPMFHSGL 180
 Qy 181 ELVGPFGKVIKANWKAPEINFGDAVHGWHTHSLSSGESIFSLAGNALPPEGGL 240
 Db 181 ELVGPFGKVIKANWKAPEINFGDAVHGWHTHSLSSGESIFSLAGNALPPEGGL 240
 Qy 241 QMTKSYGSGMGLMDGTGSGVSDLAUVELMAFGAKGRLEINELGDVARIYSHLNTV 300
 Db 241 QMTKSYGSGMGLMDGTGSGVSDLAUVELMAFGAKGRLEINELGDVARIYSHLNTV 300
 Qy 301 FPNNSKTCGCVKFWNFIDANTTWTVAIVKQMPEDKRLAUSVQRTYGPAGPWS 360
 Db 301 FPNNSKTCGCVKFWNFIDANTTWTVAIVKQMPEDKRLAUSVQRTYGPAGPWS 360
 Qy 361 DDNNMETASQNGKTKQSDLSLNGSGEDVYGDVATFVGVKSAIGSTGTFPAY 420
 Db 361 DDNNMETASQNGKTKQSDLSLNGSGEDVYGDVATFVGVKSAIGSTGTFPAY 420
 Qy 421 QAVSSSWNAEPFASSTWHTLTKTDR 449
 Db 421 QAVSSSWNAEPFASSTWHTLTKTDR 449
 RESULT 13
 / Sequence 59, Application US/09843250

```

; Sequence 17, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Gibson, R.
; APPLICANT: Resnick, S.
; APPLICANT: Lee, K.
; TITLE REFERENCE: US/09843250
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 17
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.6.
US-09-843-250-17

```

Query Match 98.48; Score 2394; DB 11; Length 449;

Best Local Similarity 99.33; 4; Mismatches 2; Indels 0; Gaps 0;

Matches 446; Conservative 2; Indels 0; Gaps 0;

1 MYNNKLVISSEGLSQQHLLHGBELPOHELTAFANMLFTDLSLPAPQVYVARG 60

1 MYNNKLVISSEGLSQQHLLHGBELPOHELTAFANMLFTDLSLPAPQVYVARG 60

61 IDIVISVRQNDGSTRFLNCHRGKCLISVEAGNAGFVCSHWGFGSGNGELASVPE 120

61 IDIVISVRQNDGSTRFLNCHRGKCLISVEAGNAGFVCSHWGFGSGNGELASVPE 120

121 KLVGSELNKKCLGLAEVAVERVPSFGTFCQDPAFLADYLDGDAWYLPMPFHSGL 180

121 KLVGSELNKKCLGLAEVAVERVPSFGTFCQDPAFLADYLDGDAWYLPMPFHSGL 180

181 ELVGPQKVVITKANWAPAEFNFGDHYVGVTHASSLSGSEIFSSLAGNALPPEAGL 240

181 ELVGPQKVVITKANWAPAEFNFGDHYVGVTHASSLSGSEIFSSLAGNALPPEAGL 240

241 QMTSKYSGMVLMDGYSGVSDALVPELAFGAGKOEKLEKEIGDVRARYSHACTV 300

241 QMTSKYSGMVLMDGYSGVSDALVPELAFGAGKOEKLEKEIGDVRARYSHACTV 300

301 FNNSSMLTCSGFGVKNPFDANTTWTVAIVKOMPDELKRLADSVQRTVGPAGWES 360

301 FNNSSMLTCSGFGVKNPFDANTTWTVAIVKOMPDELKRLADSVQRTVGPAGWES 360

361 DDNDNMTASQNGKTKQSDLSLNGFGEDVGVDAVTVGVKSGAIGTSTRGFTAY 420

361 DDNDNMTASQNGKTKQSDLSLNGFGEDVGVDAVTVGVKSGAIGTSTRGFTAY 420

421 QNVSSSNWAEFHASHTWTELTAKTDR 449

421 QNVSSSNWAEFHASHTWTELTAKTDR 449

RESULT 14

US-09-843-250-18

; Sequence 18, Application US/09843250

; Publication No. US20030022335A1

; GENERAL INFORMATION:

; APPLICANT: Paralen, R.

; APPLICANT: Gibson, R.

; APPLICANT: Resnick, S.

; TITLE REFERENCE: US/09843250

; CURRENT APPLICATION NUMBER: US/09/843,250

; CURRENT FILING DATE: 2001-04-26

; PRIOR APPLICATION NUMBER: PCT/US99/25079

; PRIOR FILING DATE: 1999-10-26

; NUMBER OF SEQ ID NOS: 65

; SOFTWARE: FastSeq for Windows Version 4.0

; FILE REFERENCE: 875.006US2

; SEQ ID NO 18

; LENGTH: 449

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.6.

US-09-843-250-17

Query Match 98.48; Score 2394; DB 11; Length 449;

Best Local Similarity 99.33; 4; Mismatches 2; Indels 0; Gaps 0;

Matches 446; Conservative 2; Indels 0; Gaps 0;

1 MYNNKLVISSEGLSQQHLLHGBELPOHELTAFANMLFTDLSLPAPQVYVARG 60

1 MYNNKLVISSEGLSQQHLLHGBELPOHELTAFANMLFTDLSLPAPQVYVARG 60

61 IDIVISVRQNDGSTRFLNCHRGKCLISVEAGNAGFVCSHWGFGSGNGELASVPE 120

61 IDIVISVRQNDGSTRFLNCHRGKCLISVEAGNAGFVCSHWGFGSGNGELASVPE 120

121 KLVGSELNKKCLGLAEVAVERVPSFGTFCQDPAFLADYLDGDAWYLPMPFHSGL 180

121 KLVGSELNKKCLGLAEVAVERVPSFGTFCQDPAFLADYLDGDAWYLPMPFHSGL 180

181 ELVGPQKVVITKANWAPAEFNFGDHYVGVTHASSLSGSEIFSSLAGNALPPEAGL 240

181 ELVGPQKVVITKANWAPAEFNFGDHYVGVTHASSLSGSEIFSSLAGNALPPEAGL 240

241 QMTSKYSGMVLMDGYSGVSDALVPELAFGAGKOEKLEKEIGDVRARYSHACTV 300

241 QMTSKYSGMVLMDGYSGVSDALVPELAFGAGKOEKLEKEIGDVRARYSHACTV 300

301 FNNSSMLTCSGFGVKNPFDANTTWTVAIVKOMPDELKRLADSVQRTVGPAGWES 360

301 FNNSSMLTCSGFGVKNPFDANTTWTVAIVKOMPDELKRLADSVQRTVGPAGWES 360

361 DDNDNMTASQNGKTKQSDLSLNGFGEDVGVDAVTVGVKSGAIGTSTRGFTAY 420

361 DDNDNMTASQNGKTKQSDLSLNGFGEDVGVDAVTVGVKSGAIGTSTRGFTAY 420

421 QNVSSSNWAEFHASHTWTELTAKTDR 449

421 QNVSSSNWAEFHASHTWTELTAKTDR 449

RESULT 14

US-09-843-250-18

; Sequence 18, Application US/09843250

; Publication No. US20030022335A1

; GENERAL INFORMATION:

; APPLICANT: Paralen, R.

; APPLICANT: Gibson, R.

; APPLICANT: Resnick, S.

; TITLE REFERENCE: US/09843250

; CURRENT APPLICATION NUMBER: US/09/843,250

; CURRENT FILING DATE: 2001-04-26

; PRIOR APPLICATION NUMBER: PCT/US99/25079

; PRIOR FILING DATE: 1999-10-26

; NUMBER OF SEQ ID NOS: 65

; SOFTWARE: FastSeq for Windows Version 4.0

; FILE REFERENCE: 875.006US2

; SEQ ID NO 18

; LENGTH: 449

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.6.

US-09-843-250-17

Query Match 98.48; Score 2394; DB 11; Length 449;

Best Local Similarity 99.33; 4; Mismatches 2; Indels 0; Gaps 0;

Matches 446; Conservative 2; Indels 0; Gaps 0;

1 MYNNKLVISSEGLSQQHLLHGBELPOHELTAFANMLFTDLSLPAPQVYVARG 60

1 MYNNKLVISSEGLSQQHLLHGBELPOHELTAFANMLFTDLSLPAPQVYVARG 60

61 IDIVISVRQNDGSTRFLNCHRGKCLISVEAGNAGFVCSHWGFGSGNGELASVPE 120

61 IDIVISVRQNDGSTRFLNCHRGKCLISVEAGNAGFVCSHWGFGSGNGELASVPE 120

121 KLVGSELNKKCLGLAEVAVERVPSFGTFCQDPAFLADYLDGDAWYLPMPFHSGL 180

121 KLVGSELNKKCLGLAEVAVERVPSFGTFCQDPAFLADYLDGDAWYLPMPFHSGL 180

181 ELVGPQKVVITKANWAPAEFNFGDHYVGVTHASSLSGSEIFSSLAGNALPPEAGL 240

181 ELVGPQKVVITKANWAPAEFNFGDHYVGVTHASSLSGSEIFSSLAGNALPPEAGL 240

241 QMTSKYSGMVLMDGYSGVSDALVPELAFGAGKOEKLEKEIGDVRARYSHACTV 300

241 QMTSKYSGMVLMDGYSGVSDALVPELAFGAGKOEKLEKEIGDVRARYSHACTV 300

301 FNNSSMLTCSGFGVKNPFDANTTWTVAIVKOMPDELKRLADSVQRTVGPAGWES 360

301 FNNSSMLTCSGFGVKNPFDANTTWTVAIVKOMPDELKRLADSVQRTVGPAGWES 360

361 DDNDNMTASQNGKTKQSDLSLNGFGEDVGVDAVTVGVKSGAIGTSTRGFTAY 420

361 DDNDNMTASQNGKTKQSDLSLNGFGEDVGVDAVTVGVKSGAIGTSTRGFTAY 420

421 QNVSSSNWAEFHASHTWTELTAKTDR 449

421 QNVSSSNWAEFHASHTWTELTAKTDR 449

RESULT 14

US-09-843-250-18

; Sequence 18, Application US/09843250

; Publication No. US20030022335A1

; GENERAL INFORMATION:

; APPLICANT: Paralen, R.

; APPLICANT: Gibson, R.

; APPLICANT: Resnick, S.

; TITLE REFERENCE: US/09843250

; CURRENT APPLICATION NUMBER: US/09/843,250

; CURRENT FILING DATE: 2001-04-26

; PRIOR APPLICATION NUMBER: PCT/US99/25079

; PRIOR FILING DATE: 1999-10-26

; NUMBER OF SEQ ID NOS: 65

; SOFTWARE: FastSeq for Windows Version 4.0

; FILE REFERENCE: 875.006US2

; SEQ ID NO 18

; LENGTH: 449

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.6.

US-09-843-250-17

Query Match 97.44; Score 2346; DB 11; Length 449;

Best Local Similarity 96.74; Pred. No. 6.9e-220;

Matches 434; Conservative 10; Mismatches 5; Indels 0; Gaps 0;

1 MYNNKLVISSEGLSQQHLLHGBELPOHELTAFANMLFTDLSLPAPQVYVARG 60

1 MYNNKLVISSEGLSQQHLLHGBELPOHELTAFANMLFTDLSLPAPQVYVARG 60

61 IDIVISVRQNDGSTRFLNCHRGKCLISVEAGNAGFVCSHWGFGSGNGELASVPE 120

61 IDIVISVRQNDGSTRFLNCHRGKCLISVEAGNAGFVCSHWGFGSGNGELASVPE 120

121 KLVGSELNKKCLGLAEVAVERVPSFGTFCQDPAFLADYLDGDAWYLPMPFHSGL 180

121 KLVGSELNKKCLGLAEVAVERVPSFGTFCQDPAFLADYLDGDAWYLPMPFHSGL 180

181 ELVGPQKVVITKANWAPAEFNFGDHYVGVTHASSLSGSEIFSSLAGNALPPEAGL 240

181 ELVGPQKVVITKANWAPAEFNFGDHYVGVTHASSLSGSEIFSSLAGNALPPEAGL 240

241 QMTSKYSGMVLMDGYSGVSDALVPELAFGAGKOEKLEKEIGDVRARYSHACTV 300

241 QMTSKYSGMVLMDGYSGVSDALVPELAFGAGKOEKLEKEIGDVRARYSHACTV 300

301 FNNSSMLTCSGFGVKNPFDANTTWTVAIVKOMPDELKRLADSVQRTVGPAGWES 360

301 FNNSSMLTCSGFGVKNPFDANTTWTVAIVKOMPDELKRLADSVQRTVGPAGWES 360

361 DDNDNMTASQNGKTKQSDLSLNGFGEDVGVDAVTVGVKSGAIGTSTRGFTAY 420

361 DDNDNMTASQNGKTKQSDLSLNGFGEDVGVDAVTVGVKSGAIGTSTRGFTAY 420

421 QNVSSSNWAEFHASHTWTELTAKTDR 449

421 QNVSSSNWAEFHASHTWTELTAKTDR 449

RESULT 15

US-09-843-250-19

; Sequence 19, Application US/09843250

; Publication No. US20030022335A1

; GENERAL INFORMATION:

; APPLICANT: Paralen, R.

; APPLICANT: Gibson, R.

; APPLICANT: Resnick, S.

; TITLE REFERENCE: US/09843250

; CURRENT APPLICATION NUMBER: US/09/843,250

; CURRENT FILING DATE: 2001-04-26

; PRIOR APPLICATION NUMBER: PCT/US99/25079

; PRIOR FILING DATE: 1999-10-26

; NUMBER OF SEQ ID NOS: 65

; SOFTWARE: FastSeq for Windows Version 4.0

; FILE REFERENCE: 875.006US2

; SEQ ID NO 19

; LENGTH: 449

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.7.

US-09-843-250-18

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; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:8.
; NAME/KEY: SITE (35)
; COMMENT:
; OTHER INFORMATION: Xaa = any amino acid.
US-09-843-250-13

Query Match
Score/Length Similarity 95.58; Score 2318; DB 11; Length 449;
Matches 429; Conservative 12; Mismatches 8; Indels 0; Gaps 0;

Qy 1 MRSKNTLVSRCSEKQKTHSDSELPQHELTFRANSEKLTGKSLFRASQVPTKNG 60
Db 1 MNYKRLVSESELTQHELTINSDSELPQHELTFRANSEKLTGKSLFRASQVPTKNG 60
Qy 61 TQNVYKQKQKSTIAKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQK 120
Db 61 TQNVYKQKQKSTIAKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQK 120
Qy 61 IDEVTYKQKQKSTIAKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQK 120
Db 61 IDEVTYKQKQKSTIAKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQK 120
Qy 121 KQVYKSLKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQK 180
Db 121 KQVYKSLKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQK 180
Qy 181 ELKQPPGVVITANWAKPAENFVDNATVNGTHASSLSGSESIPTSLAGNALIPFGAGL 240
Db 181 ELKQPPGVVITANWAKPAENFVDNATVNGTHASSLSGSESIPTSLAGNALIPFGAGL 240
Qy 241 QWTKYKSGKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQK 300
Db 241 QWTKYKSGKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQK 300
Qy 301 FPNNSMTKSGVTPKMPIDMTISWTYTAIVKQMPKELKRLAUSQKTKGAFWES 360
Db 301 FPNNSMTKSGVTPKMPIDMTISWTYTAIVKQMPKELKRLAUSQKTKGAFWES 360
Qy 361 DNDNMETASQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQ 420
Db 361 DNDNMETASQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQ 420
Qy 421 QWVSSNNAWFEHLSWTRELKNTKTR 449
Db 421 QWVSSNNAWFEHLSWTRELKNTKTR 449

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Search completed: December 9, 2003, 16:09:34
 Job time : 23.1429 sec

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 9, 2003, 15:44:13 ; Search time 11.9571 Seconds
1602.205 Million cell updates/sec

Title: US-09-843-250-2

Patent score: 24.08

Sequence: 1 MYNNKLVLSGSKQLLI.....ASFEHASTNRIETLTKYTR 449

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : 1: Issued Patents:AA:1/isa/fa COMB pep:
2: /cgn2_e/prodata/1/isa/fa COMB pep:
3: /cgn2_e/prodata/1/isa/fa COMB pep:
4: /cgn2_e/prodata/1/isa/fa COMB pep:
5: /cgn2_e/prodata/1/isa/fa COMB pep:
6: /cgn2_e/prodata/1/isa/fa COMB pep:

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Query Match	Score	Match Length	DB ID	Description
1	408.5	17.0	463	US-09-252-991A-31367	Sequence 31367, A
2	408.5	16.9	496	US-09-252-991A-31367	Sequence 6452, Ap
3	388	16.9	466	US-09-252-991A-31367	Sequence 7248, Ap
4	385	16.0	466	US-09-252-991A-31367	Sequence 7581, Ap
5	364	15.1	471	US-09-338-352-7581	Sequence 25088, A
6	364	14.5	425	US-09-252-991A-25088	Sequence 17164, A
7	345	14.5	425	US-09-338-352-7581	Sequence 19627, Ap
8	280.5	11.6	375	US-09-338-352-7581	Sequence 4, Repl1
9	237.5	9.9	529	US-09-252-991A-19627	Sequence 2, Appl1
10	224	9.3	446	US-09-004-3938-4	Sequence 2, Appl1
11	185	7.7	35	US-09-004-3938-2	Sequence 2, Appl1
12	185	7.7	35	US-09-004-3938-2	Sequence 2, Appl1
13	174	7.2	35	US-08-810-009-20	Sequence 21, Appl1
14	168	7.0	35	US-08-810-009-21	Sequence 6765, Ap
15	168	6.9	629	US-09-252-991A-27100	Sequence 6765, Ap
16	158	6.0	629	US-09-076-022-6765	Sequence 3, Appl1
17	118.5	4.9	379	US-09-028-934-36	Sequence 3, Appl1
18	112.5	4.7	359	US-09-028-934-36	Sequence 12, Appl1
19	110	4.6	35	US-08-810-009-12	Sequence 14, Appl1
20	109	4.5	625	US-08-810-009-14	Sequence 4, Appl1
21	109	4.5	625	US-08-810-009-14	Sequence 15, Appl1
22	108	4.5	35	US-08-810-009-11	Sequence 4, Appl1
23	108	4.5	35	US-08-810-009-15	Sequence 9, Appl1
24	106	4.4	35	US-08-810-009-9	Sequence 456, Ap
25	106	4.4	35	US-09-338-352-4956	Sequence 18, Appl1
26	104	4.3	432	US-08-809-326A-16	Sequence 16, Appl1
27	103.5	4.3	432	US-08-809-326A-16	Sequence 16, Appl1

ALIGNMENTS

RESULT 1
US-09-252-991A-31367
; Sequence 31367, Application US/09252991A
; Patent No. 6551795
; APPLICANT: MATCO J.
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
; CURRENT INVENTOR: RUBENFELD ET AL.
; CURRENT APPLICANT: RUBENFELD ET AL.
; CURRENT PRIORITY: US/09/252,991A
; CURRENT FILING DATE: 1999-02-18
; PRIOR APPLICATION NUMBER: US 60/074,788
; PRIOR FILING DATE: 1998-02-18
; PRIOR APPLICATION NUMBER: US 60/094,190
; PRIOR FILING DATE: 1998-07-27
; NUMBER OF SEQ ID NOS: 33142
; SEQ ID NO 31367
; LENGTH: 463
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-31367

Query Match 17 08; Score 408.5; DB 4; Length 463;
Matches 110; Conservative 69; Mismatches 91; Gaps 17;
QY 23 DEERQHLHTYFNNKLEFRIUSLIPAGQVYNNMIDIVIVSQNDISPAFVCR 82
DB 38 DPEFLFELKMHFGNNVYLAHSGVAGNDVLTQCGSVIARRNDQUNFINCK 97
QY 83 HMKTLHVNKRNKMGVCSHWCQSGKQSV--PFKILYSGKACQK---LKE 137
DB 98 HFGMKLVNCSSTVCFPCFNNSKLKVPAQNG-YQCGN--CGESHLTR 154
QY 138 VAVESFPGTQYFQDFAPFMDYLDADVIMBFHES--GGELVPGKCVKIVANKK 196
DB 155 VAVESFPGTQYFQDFAPFMDYLDADVIMBFHES--GGELVPGKCVKIVANKK 214
QY 197 APANFVDVAHYNG---WTHASS---LARGESIFSLAGMALPPGKGLQ 241
DB 215 LTKYN--GDDQVHYSVYRNATATQCGQQRDAQDLPT---MSANMGR--CGGGY 265
QY 242 MYTSGSGKQVMDQGVSHSALVPE-LMAFGAGKQELRINKIGDVAR-LYRSHNCT 299
DB 266 ---SFFGHGMLMRHNA-----PEKPAF--ERRAELANDGEARDMTENRSLC 313
QY 300 VPPNNKML--TCGSGFKVKNPINDANTVYVAVIYKMDPKLKKLADSVTVGPAFW 358
DB 314 LYPNVLMQDSQRIAPLVSVDRTETITTCIAPKSGSAAERRIROYDFPNVSGMA 373

359 ESDDNDMMFASGNGKKYQ 377
 Db 374 TDDLEFRSQQG--VQ 389

RESULT 2
 US-09-328-352-6452
 ; Sequence 6452, Application US/09328352
 ; Patent No. 6562958
 ; APPLICANT: Gary L. Bretton et al.
 ; TITLES OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
 ; TITLE OF INVENTION: BAUMANNII FOR DIAGNOSTICS AND THERAPEUTICS
 ; FILE REFERENCE: GTC93-03PA
 ; CURRENT APPLICATION NUMBER: US/09/328,352
 ; CURRENT FILING DATE: 1999-06-04
 ; NUMBER OF SEQ ID NOS: 8252
 ; SEQ ID NO 328
 ; LENGTH: 496
 ; TYPE: PRT
 ; ORGANISM: Acinetobacter baumannii
 US-09-328-352-6452

Query Match
 Best Local Similarity 31.3%; Score 407.5; DB 4; Length 496;
 Matches 105; Conservative 59; Mismatches 146; Indels 25; Gaps 13;

QY 23 DEELFOHLATIPANMKLFTUDGLIPACDYTVANGIDVTVSRQDGSIRAFINVCR 82
 Db 73 DEALFDLEMKYIPFGNMYLTHESQDTPNNDDVTVTVYTGROPIITANENGELNMINACS 132
 QY 83 HRGKTLVSTVAGNAGFCVCSYHKGFGSGCEASTPEKDL--YGERLANK--CLGKLEVAR 140
 Db 133 HRGALQCYVTEGKATTCYFEGNTVFNSSGKLLKYPDAGTSDCFNQSGHDLKVAR 192
 QY 141 VSEPGTIVCGFQDAPFLADYGLDAMVLEMPFRH--GCELVGPGKVIKAWAPA 199
 Db 193 FBYGKPLFSGELNPVPSLEEFLEETKTIIDLVNGBHGLVLRSGSTVYSGNWLTA 252
 QY 200 NTVGQVNRNG--VTHASLSSGSIIFSSLAGNALPPFGA--GLMTSRQ--SGMYL 253
 Db 253 EN--GANDYHVSVAHMYATVQYERKS--TONALNANGSNGKQSGSTPEFENML 309
 QY 254 MWSYSGEADLVPELMAGFQVCKYHKGFGSGCEASTPEKDL--YGERLANK--CLGKLEVAR 360
 Db 310 WYQANEDRPNPF-----KADYEYKGENSKNLEER--NLCYLPVYLAQPG 360
 QY 312 -VYKWNIPIDANTISWTYALYK--DMPDELKRL 344
 Db 361 SQIRVLEPLSVNRTVTCYIAPKDEVDANARLI 395

RESULT 3
 US-09-328-352-7248
 ; Sequence 7248, Application US/09328352
 ; Patent No. 6562958
 ; APPLICANT: Gary L. Bretton et al.
 ; TITLES OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
 ; TITLE OF INVENTION: BAUMANNII FOR DIAGNOSTICS AND THERAPEUTICS
 ; FILE REFERENCE: GTC93-03PA
 ; CURRENT APPLICATION NUMBER: US/09/328,352
 ; CURRENT FILING DATE: 1999-06-04
 ; NUMBER OF SEQ ID NOS: 8252
 ; SEQ ID NO 7248
 ; LENGTH: 415
 ; TYPE: PRT
 ; ORGANISM: Acinetobacter baumannii
 US-09-328-352-7248

Query Match
 Best Local Similarity 26.1%; Score 386; DB 4; Length 445;
 Matches 124; Conservative 66; Mismatches 164; Indels 88; Gaps 21;

QY 20 TUGDRELPOHLEATIPANMKLFTUDGLIPACDYTVANGIDVTVSRQDGSIRAFIN 79
 Db 47 LYDERRI--FOREKIKI--FSTWVWVAHASETPEGGYTKTNGQVTVVVDKXKVVTLN 106
 QY 80 VTRDKONTLVSTVAGNAGFCVCSYHKGFGSGCEASTPEKDL--YGERLANK--CLGKLEVAR 139
 Db 107 RCHRAAIVCEHKGKNTGFTVCTVHGSVALDSGLVGF--SFSTYGCLDLSGLFVSL-- 164
 QY 140 VSEPGTIVCGFQDAPFLADYGLDAMVLEMPFRHSG--LEHVG-----PKRVIK 192
 Db 165 RVEYNGMIPAFKEDIQPLEEFLEFGAKMIDLPKQCGAGV--KVLGSHREFPG-- 219
 QY 193 ANKAPANPVGADTVHGMTHASLERS-----GSITSSLAGNALPPFGALQMTSYGS 248
 Db 220 -NMKTLIN--TTADVHPLVHKSTLSVDEKTELEN-----FEN 257
 QY 249 GMVLEWVSYSGEADLVPELMAGFQVCKYHKGFGSGCEASTPEKDL--YGERLANK--CLGKLEVAR 317
 Db 258 QGQFVELGSGISVWMI--ELVTOLEEDLMBPTQERFTEALQEDGHEHLEVAR 345
 QY 294 -----SHLNTVFNSSMLTCS--GVFKWNIPIDANTISWTYALYK-----MPDELKRL 345
 Db 318 VGGSGNLANPFI--TACSNAPVPLQFISVATET--HISVTHGQGGYTAQYTRILH 373
 QY 346 DSVQTVQVAGHSGEDNDNMTASNGKYSQSRDELSLNGSEVDVGVGVGVG-- 404
 Db 374 EYFQ--GPGFGVQFDUSEMERY--QGAN--AGNDLHMHGEL-----GEGVT 418
 QY 405 -----KSAI--GETSGTGFATQ 421
 Db 419 EQLGSDVSATGTGGRAATQOMK 440

RESULT 4
 US-09-252-991A-31385
 ; Sequence 31385, Application US/09252991A
 ; Patent No. 4551796
 ; APPLICANT: Marc J. Rubenfield et al.
 ; TITLES OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
 ; TITLE OF INVENTION: PSEUDOMONAS FOR DIAGNOSTICS AND THERAPEUTICS
 ; FILE REFERENCE: 107196.136
 ; CURRENT APPLICATION NUMBER: US/09/252,991A
 ; CURRENT FILING DATE: 1999-02-18
 ; PRIOR FILING DATE: 1998-02-18
 ; PRIOR FILING DATE: 1998-02-18
 ; PRIOR FILING DATE: 1998-02-18
 ; PRIOR FILING DATE: 1998-07-27
 ; NUMBER OF SEQ ID NOS: 32
 ; SEQ ID NO 31385
 ; LENGTH: 466
 ; TYPE: PRT
 ; ORGANISM: Pseudomonas aeruginosa
 US-09-252-991A-31385

Query Match
 Best Local Similarity 16.0%; Score 385; DB 4; Length 466;
 Matches 116; Conservative 72; Mismatches 157; Indels 100; Gaps 18;

QY 23 DEELFOHLATIPANMKLFTUDGLIPACDYTVANGIDVTVSRQDGSIRAFINVCR 82
 Db 39 EPELFOHMLFERNMTHASLERSLAPHDPTVLGAGQPLVITRQGNQALVDACQ 98
 QY 83 HRGKTLVSTVAGNAGFCVCSYHKGFGSGCEASTPEKDL--YGERLANK--CLGKLEVAR 140
 Db 99 HRGATVTVGKNGSTTCTCPHAKYKDGKRVKVAEGE--YFEGFKATRGKKA--AR 154
 QY 141 VSEPHGTQFQDPA--PPVADYGLDAMVLEMPFRH--SGCELVGPGKVIKAWAPA 197
 Db 155 IOSTRGFFVSLVDAGEDDLVDFGLDARVFLDMVAQSPSGSELEVLGTISTVYTGKML 214
 QY 198 PARNVGVADVHGMTHASLERSGSIIFSSLAGNALPPFGALQMT---SKYSGMYL-- 253

Db 215 QNENEL-DQYHNTSTVHTV-----ATVGRQOQVRAERGVAAITLQVSLGAGDAATD 266
 Qy 254 --NCYGVGRS-----ADVPELMFAGQAKORLKEINIGDVAITYSHL 286
 Db 267 DQNFSPANGSVLSENNVAVRGVAGVAPLVA-----EYQALBNWGBEL 315
 Qy 297 -NCTVFNNSML--TCSGVKVPVNDITNTVYTAIVKEMPEDEKLRLADSVQTVGP 354
 Db 316 ENLNTYFSLFIDQLSOLIVLELAWRTI-----VSCDGV 354
 Qy 355 AFWESDDUMETASONGKYSQRSDLSLNGFGSDVGDVAVGVGSGALGTSYR 414
 Db 355 XG-ESD-----ADRENILQEPFNVISGTFDUL-----VEFR 388
 Qy 415 GFYRAYQNVSSNNARFASSTW 439
 Db 389 EAQGFQANL--ERNEDISRGCGW 411
 RESULT 6
 US-09-328-352-7581
 ; Sequence 7581, Application us/09328352
 ; Patent No. 6562958
 ; GENERAL INFORMATION:
 ; APPLICANT: Acinetobacter baumannii
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
 ; FILE REFERENCE: GTC99-03PA
 ; CURRENT APPLICATION NUMBER: US/09/328,352
 ; PRIOR FILING DATE: 1998-06-04
 ; NUMBER OF SEQ ID NOS: 8252
 ; SEQ ID NO 7581
 ; LENGTH: 471
 ; TYPE: PRT
 ; ORGANISM: Acinetobacter baumannii
 US-09-328-352-7581

Query Match 15.8%; Score 364; DB 4; Length 471;
 Best Local Similarity 27.48; Pred. No. 6.9e-28;
 Matches 114; Conservative 70; Mismatches 180; Indels 78; Gaps 16;
 Qy 23 DEELQHELTATFANWLEFTHSLIPAGQVYTAAGIDVINSRQDSITAFVJCR 82
 Db 35 SEPIALDLEWTFEKTWYVACHESIENHIDITVQIQPITVSDRQELUNWYRCE 94
 Qy 83 RECKTVLTVPGANQAFVCSYHVGFGSGNELQVFPFKDLGSLNKLGLAKVAVR 142
 Db 95 ENLNTYFVAKNSVTPCPHNCATKSDQAKVYKASR--TCDPDSVGRSLQK-GRA 152
 Qy 143 SFQGVYVCGDQEA--PLMVLIDGAAWVLELPEFKS--GGLKLVGPKVYIANKVPA 159
 Db 153 DSNVGFVLDVQATSDLSLDGAKVFLDLAVNGSQTGVELAVGKSTYFAGMKLQ 212
 Qy 200 SNVGVDAVHYGWTM--AASLRSGESIFSLAGNALNPPAGLQWT--SKYSGSGVLA 254
 Db 213 ENGL-DGHNLTSTVHTVYVQHQOQNAS-----KAEIDITVSLKGDGSDTD 262
 Qy 255 DQYSCVSHADLV-----PELMAGFGAKORLKEINIGDVAITYSHL-NCTVFNNSM 306
 Db 263 DQNFSPANGSVLSENNVAVRGVAGVAGVAPLVA-----EYQALBNLNUYFSLFF 322
 Qy 307 L-TCSGVKVPVNDITNTVYTAIVKEMPEDEKLRLADSVQTVGAGVGRSDNN 365
 Db 323 MQDLSQURLVRFVANNKTV-----ISQCIQWG--ES-----354
 Qy 366 MBTASQNGKYSQRSDLSLNGFGSDVGDVAVGVGSGALGTSYRGPYRAYQNV 425
 Db 355 --EYQALBNLNUYFEDFVNSLGLTDPUL-----VEFR3QKQFQRL- 394
 Qy 426 GSNVAGVDAVHYGWTM-----EYQALBNLNUYFEDFVNSLGLTDPUL 447
 Db 395 --ERNEDISRGCGMEYGVATNS 415

RESULT 6
 US-09-252-991A-25088
 ; Sequence 25088, Application US/09252991A
 ; Patent No. 6551795
 ; GENERAL INFORMATION:
 ; APPLICANT: Marc J. Rubenfield et al.
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
 ; FILE REFERENCE: 107196.136
 ; CURRENT APPLICATION NUMBER: US/09/252,991A
 ; PRIOR FILING DATE: 1999-02-18
 ; NUMBER OF SEQ ID NOS: 428
 ; PRIOR APPLICATION NUMBER: US 60/094,190
 ; PRIOR FILING DATE: 1998-07-27
 ; NUMBER OF SEQ ID NOS: 33142
 ; SEQ ID NO 25088
 ; LENGTH: 428
 ; TYPE: PRT
 ; ORGANISM: Pseudomonas aeruginosa
 US-09-252-991A-25088
 Query Match 14.5%; Score 348.5; DB 4; Length 425;
 Best Local Similarity 27.48; Pred. No. 6.9e-25;
 Matches 114; Conservative 72; Mismatches 177; Indels 53; Gaps 15;
 Qy 25 ELFQHELTATFANWLEFTHSLIPAGQVYTAAGIDVINSRQDSITAFVJCR 84
 Db 25 ELHRELFHFDGSMVIAHLSELRPGPTITRDVGNNITITRRADGEPVYLAQNR 84
 Qy 85 GKTLSVSEKNGVAGVCSYHVGFGSGNELQVFPFKDLGSLNKLGLKLVAVRS- 143
 Db 85 GANYCAERQNSQGFCTGHWGTVDSHSLGLP-DKAAVQEA--GQCHPELSLTVYKHA 141
 Qy 144 -FSGTIXGQDQERELMAYIGDVAITYSHLPEFKS--GGLKLVGPKVYIANKVARN 201
 Db 142 VYRNFLEHYTAQRSPLETLTGANDYIDLICDQSEALFIIPGCFHSITANWLLRN 201
 Qy 202 FUDANVHVQVTHASLRSGESIFSLAGNALNPPAGLQWTSKYSGVJMDYGVGH 261
 Db 202 QV-DAVILFPAHYKLYEVLNTL-----GTPESHKRGSG-ENLGNHALI 246
 Qy 262 \$-----ADLVPE-LAMAFQAKORLKEINIGDVAIR-ITYSHLNTVFN--N 304
 Db 247 SGFSTGPTAMSLPEALKKSTANLVELVRFQADRIANTNSLFTFNVLIN 306
 Qy 305 SMITCSGVKVPVNDITNTVYTAIVKEMPEDEKLRLADSVQTVGAGVGRSD 364
 Db 307 DGLGVN--ISSEPTADEVTVWGADETRBARINGLSITVSGAGTDPDVE 364
 Qy 365 MBTASQNGKYSQRSDLSLNGFGSDVGDVAVGVGSGALGTSYRGPYRAY 420
 Db 365 LLESCQ--RAYAH-----ALQDSSPSRQ-----MGFATRVHDEQRQGFVREW 407
 RESULT 7
 US-09-252-991A-17164
 ; Sequence 17164, Application US/09252991A
 ; Patent No. 6551795
 ; GENERAL INFORMATION:
 ; APPLICANT: Rubenfield et al.
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
 ; FILE REFERENCE: 107196.136
 ; CURRENT APPLICATION NUMBER: US/09/252,991A
 ; PRIOR FILING DATE: 1999-02-18
 ; NUMBER OF SEQ ID NOS: 430
 ; PRIOR APPLICATION NUMBER: US 60/094,190
 ; PRIOR FILING DATE: 1998-07-27
 ; NUMBER OF SEQ ID NOS: 33142

SEQ ID NO 17164
; LENGTH: 449
; TYPE: BRT
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-17164

Query Match 12.3%; Score 295; DB 4; Length 449;

Best Local Similarity 26.4%; Pred. No. 9.8e-20;

Matches 111; Conservative 54; Mismatches 159; Indels 96; Gaps 17;

QY 23 DEBLEPQELKIKTIPARMLEFTHSLDIPAGDYVTAHMGIDIVISVQNGSDIRAFINVC 82

60 DQRLPELQELFHGHEHLAGMCEIPAKGNFUTQIGNPLVITGABOOWAHFNVC 119

QY 83 HCKKIVLAVGAGNAGVCFVHGFGSGNGELGVFPERDGLGSLNKGLKGVAVZ 142

120 HRSGLVSEKGVAKLVCTPHQTYVELDRLA---FAGTEGADUPKMGKGLPI-OKV 171

QY 143 SFHQITVYCGDQAPPLMDLGDAAWLEPMFHSGLVLPFGKVIK-----ANK 196

176 TAGQYIFISLANPDAIDPDLATIRHMEFYDMEN-----AKVAQTTIRANMK 226

QY 227 LVLEN-NRECHQNGHPELAK-----TLLENDVITDPAAS--QAFQCVACTSAMO- 276

QY 257 VGVSHSDVAPVLA-PO-----GAVQ---ELAKETGVRA 289

QY 270 AKETFAHAFGLANLIVKMLDQTVMTNKGSSGLKMLKNDPLASMI 330

QY 290 RYRSHNLTVPFNSKLTGQ---VQVYVHPIANTVETVIAVKNMPE----- 338

QY 331 ----LALL-----PENNHCNDHLIVETVM-FISAGETLAVTGLVKAIVGVYDVA 379

QY 339 ----DLKRLASVTVGVAGVFWSDNDNMETASQNKYQSRDLSLNG 388

QY 380 RLEAVDNTNQDLAEHQNGSDAYOGPYKTEFVGLDWTYS--ERQNGUG 437

RESULT 0

US-09-328-352-4700

Sequence 4700; Application US/09328352

Best Local Similarity 26.2%; Pred. No. 1.4e-18; Indels 95; Gaps 15;

Matches 86; Conservative 54; Mismatches 139;

QY 30 EKRTIPANMLFTHSLDIPADYVTAHMGIDIVISVQNGSDIRAFINVCRRKGTIV 89

170 RLEKQGLMIVPFSVSNRQNGPFFKRLGVVPTVTSQ--EAPLADPHK-LSAI 230

QY 90 SVENAGNAGVCFVHGFGSGNGELGVFPERDGLGSLNKGLKGVAVZ 148

231 QRETQGVPLVCTPHQTYVELDRLA---FAGTEGADUPKMGKGLPI-OKV 286

QY 149 YCGDQAPPLMDLGDAAWLEPMFHSGLVLPFGKVIKNDPLASMI 206

289 FVNLDLPELQELFHGHEHLAGMCEIPAKGNFUTQIGNPLVITGABOOWAHFNVC 343

QY 207 YHVWTHASS-LASGESIFSSLAGNALP-----PEGQLQWTK---YCS 248

344 NRVFVPHKTLIPMTAPVGLARAVPSEVILLQOESTFELASLFFKAPIQYKS 403

QY 249 GNGVLMQYSGVSNADVPELAGVAGCAQBELNKGVGRVARIUSHLACTVPPNNSMLT 308

QY 404 WFSOLDCEYQDHE-----AYTMFTVYVNWEC 431

QY 432 VGRGHTFLAQYDVPAGETDTHMMATRRKQPKTFALLSTLR 477

Query Match 11.6%; Score 290.5; DB 4; Length 375;

Best Local Similarity 26.2%; Pred. No. 1.4e-18; Indels 95; Gaps 17;

Matches 97; Conservative 58; Mismatches 130;

QY 19 LIGDDELPQELFTHSLDIPAGDYVTAHMGIDIVISVQNGSDIRAFINVC 78

28 VFTSGGVCFVHGFGSGNGELGVFPERDGLGSLNKGLKGVAVZ 119

QY 79 NIKRATKIVISVAGNAGVCFVHGFGSGNGELGVFPERDGLGSLNKGLKGVAVZ 130

88 NVCPHGHGHELLS-GCKANVITCTPHQTYVELDRLA---FAGTEGADUPKMGKGLPI-OKV 140

QY 131 KXGLGKGVAVZVPHQTYVELDRLA---FAGTEGADUPKMGKGLPI-OKV 190

QY 141 SWNPLK---VSYAGVTFVNSNNTCTVEDU---PQFARLQMGVCTVOKULAKRV 193

QY 131 IK--ANKVAMNAGVGNAGVCFVHGFGSGNGELGVFPERDGLGSLNKGLKGVAVZ 248

DB 194 TETPANMKIVDNTM-ETHGCPAH-----PQFADSVQVDYKMH 231

QY 249 GNGVLMQYSGVSNADVPELAGVAGCAQBELNKGVGRVARIUSHLACTVPPNNS 305

DB 232 THQWNTLOVG-----FARESSEKFLDSVTPDEHAGFT-NECTMENPQSN 280

QY 306 MUTGCGVFKVNPIDANTVETVIAVKNMPE-----PQFARLQMGVCTVOKULAKRV 347

DB 281 PNTVIVP-----PQFARLQMGVCTVOKULAKRV 347

QY 348 VQTVGSPAGF 357

DB 334 VQGLASRGT 343

RESULT 0

US-09-252-991A-19627

Sequence 19627; Application US/09252991A

Best Local Similarity 24.9%; Pred. No. 4e-14; Indels 67; Gaps 15;

Matches 86; Conservative 54; Mismatches 139;

QY 30 EKRTIPANMLFTHSLDIPADYVTAHMGIDIVISVQNGSDIRAFINVCRRKGTIV 89

170 RLEKQGLMIVPFSVSNRQNGPFFKRLGVVPTVTSQ--EAPLADPHK-LSAI 230

QY 90 SVENAGNAGVCFVHGFGSGNGELGVFPERDGLGSLNKGLKGVAVZ 148

231 QRETQGVPLVCTPHQTYVELDRLA---FAGTEGADUPKMGKGLPI-OKV 286

QY 149 YCGDQAPPLMDLGDAAWLEPMFHSGLVLPFGKVIKNDPLASMI 206

289 FVNLDLPELQELFHGHEHLAGMCEIPAKGNFUTQIGNPLVITGABOOWAHFNVC 343

QY 207 YHVWTHASS-LASGESIFSSLAGNALP-----PEGQLQWTK---YCS 248

344 NRVFVPHKTLIPMTAPVGLARAVPSEVILLQOESTFELASLFFKAPIQYKS 403

QY 249 GNGVLMQYSGVSNADVPELAGVAGCAQBELNKGVGRVARIUSHLACTVPPNNSMLT 308

QY 404 WFSOLDCEYQDHE-----AYTMFTVYVNWEC 431

QY 432 VGRGHTFLAQYDVPAGETDTHMMATRRKQPKTFALLSTLR 477

Query Match 9.9%; Score 237.5; DB 4; Length 529;

Best Local Similarity 24.9%; Pred. No. 4e-14; Indels 67; Gaps 15;

Matches 86; Conservative 54; Mismatches 139;

QY 30 EKRTIPANMLFTHSLDIPADYVTAHMGIDIVISVQNGSDIRAFINVCRRKGTIV 89

170 RLEKQGLMIVPFSVSNRQNGPFFKRLGVVPTVTSQ--EAPLADPHK-LSAI 230

QY 90 SVENAGNAGVCFVHGFGSGNGELGVFPERDGLGSLNKGLKGVAVZ 148

231 QRETQGVPLVCTPHQTYVELDRLA---FAGTEGADUPKMGKGLPI-OKV 286

QY 149 YCGDQAPPLMDLGDAAWLEPMFHSGLVLPFGKVIKNDPLASMI 206

289 FVNLDLPELQELFHGHEHLAGMCEIPAKGNFUTQIGNPLVITGABOOWAHFNVC 343

QY 207 YHVWTHASS-LASGESIFSSLAGNALP-----PEGQLQWTK---YCS 248

344 NRVFVPHKTLIPMTAPVGLARAVPSEVILLQOESTFELASLFFKAPIQYKS 403

QY 249 GNGVLMQYSGVSNADVPELAGVAGCAQBELNKGVGRVARIUSHLACTVPPNNSMLT 308

QY 404 WFSOLDCEYQDHE-----AYTMFTVYVNWEC 431

QY 432 VGRGHTFLAQYDVPAGETDTHMMATRRKQPKTFALLSTLR 477

Query Match 9.9%; Score 237.5; DB 4; Length 529;

Best Local Similarity 24.9%; Pred. No. 4e-14; Indels 67; Gaps 15;

Matches 86; Conservative 54; Mismatches 139;

QY 30 EKRTIPANMLFTHSLDIPADYVTAHMGIDIVISVQNGSDIRAFINVCRRKGTIV 89

170 RLEKQGLMIVPFSVSNRQNGPFFKRLGVVPTVTSQ--EAPLADPHK-LSAI 230

QY 90 SVENAGNAGVCFVHGFGSGNGELGVFPERDGLGSLNKGLKGVAVZ 148

231 QRETQGVPLVCTPHQTYVELDRLA---FAGTEGADUPKMGKGLPI-OKV 286

QY 149 YCGDQAPPLMDLGDAAWLEPMFHSGLVLPFGKVIKNDPLASMI 206

289 FVNLDLPELQELFHGHEHLAGMCEIPAKGNFUTQIGNPLVITGABOOWAHFNVC 343

QY 207 YHVWTHASS-LASGESIFSSLAGNALP-----PEGQLQWTK---YCS 248

344 NRVFVPHKTLIPMTAPVGLARAVPSEVILLQOESTFELASLFFKAPIQYKS 403

QY 249 GNGVLMQYSGVSNADVPELAGVAGCAQBELNKGVGRVARIUSHLACTVPPNNSMLT 308

QY 404 WFSOLDCEYQDHE-----AYTMFTVYVNWEC 431

QY 432 VGRGHTFLAQYDVPAGETDTHMMATRRKQPKTFALLSTLR 477

Query Match 9.9%; Score 237.5; DB 4; Length 529;

Best Local Similarity 24.9%; Pred. No. 4e-14; Indels 67; Gaps 15;

Matches 86; Conservative 54; Mismatches 139;

QY 30 EKRTIPANMLFTHSLDIPADYVTAHMGIDIVISVQNGSDIRAFINVCRRKGTIV 89

170 RLEKQGLMIVPFSVSNRQNGPFFKRLGVVPTVTSQ--EAPLADPHK-LSAI 230

QY 90 SVENAGNAGVCFVHGFGSGNGELGVFPERDGLGSLNKGLKGVAVZ 148

231 QRETQGVPLVCTPHQTYVELDRLA---FAGTEGADUPKMGKGLPI-OKV 286

QY 149 YCGDQAPPLMDLGDAAWLEPMFHSGLVLPFGKVIKNDPLASMI 206

289 FVNLDLPELQELFHGHEHLAGMCEIPAKGNFUTQIGNPLVITGABOOWAHFNVC 343

QY 207 YHVWTHASS-LASGESIFSSLAGNALP-----PEGQLQWTK---YCS 248

344 NRVFVPHKTLIPMTAPVGLARAVPSEVILLQOESTFELASLFFKAPIQYKS 403

QY 249 GNGVLMQYSGVSNADVPELAGVAGCAQBELNKGVGRVARIUSHLACTVPPNNSMLT 308

QY 404 WFSOLDCEYQDHE-----AYTMFTVYVNWEC 431

QY 432 VGRGHTFLAQYDVPAGETDTHMMATRRKQPKTFALLSTLR 477

// APPLICANT: Hanson D., Andrew
 // APPLICANT: Rathinasabapathi, Bala
 // APPLICANT: Burnet, Michael
 // TITLE OF INVENTION: Polynucleotides Encoding Choline Monooxygenase and
 // TITLE OF INVENTION: Polynucleotides Transformed Therewith
 // FILE REFERENCE: UP-162
 // CURRENT APPLICATION NUMBER: US/09/004,393B
 // CURRENT FILING DATE: 1998-01-08
 // PRIOR FILING DATE: 1997-01-08
 // NUMBER OF SEQ ID NOS: 6
 // SOFTWARE: Patent In Ver. 2.0
 // SEQ ID NO 446
 // TYPE: PRT
 // ORGANISM: Beta vulgaris
 // US-09-004-393B-4
 Query Match 9.3%; Score 224; DB 4; Length 446;
 Best Local Similarity 27.4%; Pred. No. 6e-13;
 Matches 58; Conservative 37; Mismatches 97; Indels 20; Gaps 6;
 QY 11 TSGLSGKHLLHDEGLFQHELTETANWKLFLUSLIPADQGVYVAKGIVYVRSQN 70
 Db 99 EDALTPSTWTEPAPVSHLERIFYKMGVAGSEQVSGKGFVCSLGNVLEVRDQ 158
 QY 71 DGSDTANVYKRGENTLVYVNAKGVYKMGVSGNSGSLQSVFFRDYGSIMK 130
 Db 159 QSELHAFVHCTHA-SILACSGKSCFVCTHGVVLGSLANA--SKATVNDLP 215
 QY 111 KGLKGVARVSPFGVICTQDAPPLD---VLGA-----AWLSPVFPVSGLE 181
 Db 216 KGLGAL-KVAMGPFLLSLDRADNVGTEVGSSEVYKRPDMLATHESE 274
 QY 182 LVGSPGVKIVANRPAFNVGDYVGVTH 213
 Db 275 P-----PHEGMVPCNVLDSSVHPYAH 299

RESULT 11 393B-2
 // Sequence 2, Application US/0904393B
 // Patent No. 6310271
 // GENERAL INFORMATION:
 // APPLICANT: Hanson D., Andrew
 // APPLICANT: Rathinasabapathi, Bala
 // APPLICANT: Burnet, Michael
 // TITLE OF INVENTION: Polynucleotides Encoding Choline Monooxygenase and
 // TITLE OF INVENTION: Polynucleotides Transformed Therewith
 // FILE REFERENCE: UP-162
 // CURRENT APPLICATION NUMBER: US/09/004,393B
 // CURRENT FILING DATE: 1998-01-08
 // PRIOR FILING DATE: 1997-01-08
 // NUMBER OF SEQ ID NOS: 6
 // SOFTWARE: Patent In Ver. 2.0
 // SEQ ID NO 2
 // TYPE: PRT
 // ORGANISM: Spinacia oleracea
 // US-09-004-393B-2
 Query Match 9.3%; Score 223; DB 4; Length 439;
 Best Local Similarity 30.1%; Pred. No. 7e-13;
 Matches 58; Conservative 38; Mismatches 83; Indels 14; Gaps 7;

QY 27 FQELATPANRLEFTHDSLSIPADQGVYVAKGIDVYVRSQSLGTRAFVAVCHROK 86
 Db 108 YSHLERIFYGVGVAGVLSQLEKPNQVFSQVLEVTVLHDSGKRWANFNCTHRA 166
 QY 87 TLNVSVAGNAGVCTSHGFGNGELQSVFFRDYGSIMKGLQKGVAVSVESFHS 146
 Db 167 SILACSGSKSCFVYGVHGVTVGDSLSAKASAP--PHEGPFELGSPVYI-KYAVGP 223

QY 147 FVTCGTQDAPPLD---VLGDANVLEMFHS--GGLNVFPQGVKIVANKAPAS 200
 Db 224 FVTLDSRLRREGQGVTEWGLATSA---BDVKAHAFPSLOFI-HRSEFMSMKITSD 279
 QY 201 NVFQDANVGVTH 213
 Db 280 NYLDSVHPYAH 292

RESULT 12
 // Sequence 19, Application US/08810009
 // Patent No. 6211437
 // GENERAL INFORMATION:
 // APPLICANT: Briggs, Steven P.
 // APPLICANT: Johal, Gurmukh S.
 // APPLICANT: Gray, John
 // TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
 // TITLE OF INVENTION: CELL DEATH AND DISEASE RESISTANCE IN PLANTS
 // NUMBER OF SEQUENCES: 65
 // CORRESPONDENCE ADDRESS:
 // ADDRESS: BELL, SEUTZER, PARK & GIBSON
 // ADDRESS: P.O. Box 34093
 // CITY: Charlotte
 // STATE: No. 4211437th Carolina
 // COUNTRY: USA

// COMPUTER READABLE FORM:
 // MEDIUM TYPE: Floppy disk
 // COMPUTER: IBM PC compatible
 // OPERATING SYSTEM: PC-DOS/MS-DOS
 // CURRENT APPLICATION DATA: Release #1.0, Version #1.30
 // APPLICATION NUMBER: US/08/810,009
 // FILING DATE: 04-MAR-1997
 // NAME: Spruill, W. Murray
 // REGISTRATION NUMBER: 32,943
 // REFERENCE/POCKET NUMBER: 5718-4
 // TELEPHONE: 919-881-3140
 // TELEFAX: 919-881-3175
 // TELAX: 575102
 // INVENTOR ID NO: 19;
 // SEQUENCE CHARACTERISTICS:
 // LENGTH: 35 amino acids
 // TYPE: amino acid
 // TOPOLOGY: linear
 // MOLECULE TYPE: protein
 // US-08-810-009-19

Query Match 7.7%; Score 185; DB 3; Length 35;
 Best Local Similarity 94.3%; Pred. No. 6.6e-11;
 Matches 33; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 79 NVCRHGKTVNVRGKGVYVHSGKSGNKE 113
 Db 1 NVCRHGKTVNVRGKGVYVHSGKSGNKG 35

RESULT 13
 // Sequence 20, Application US/08810009
 // Patent No. 6211437
 // GENERAL INFORMATION:
 // APPLICANT: Briggs, Steven P.
 // APPLICANT: Johal, Gurmukh S.
 // APPLICANT: Gray, John
 // TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
 // TITLE OF INVENTION: CELL DEATH AND DISEASE RESISTANCE IN PLANTS

```

1 NUMBER OF SEQUENCES: 65
2 CORRESPONDENCE ADDRESSES:
3 ADDRESSEES: BELL, SELTZER, PARK & GIBSON
4 STREET: P.O. Drawer 34009
5 CITY: Charlotte
6 STATE: NC 6211437th Carolina
7 COUNTRY: USA
8 ZIP: 28234
9 COMPUTER READABLE FORM: disk
10 OPERATING SYSTEM: IBM PC compatible
11 SOFTWARE: Patent In DOS/MS-DOS
12 COMPILED ON DATE: 08/08/81, Version #1.30
13 APPLICATION NUMBER: US/08/810,009
14 FILING DATE: 04-MAR-1987
15 CLASSIFICATION: 800
16 ATTORNEY/AGENT INFORMATION:
17 NAME: Selzer, Park & Gibson
18 REGISTRATION NUMBER: 32,943
19 REFERENCE/DOCKET NUMBER: 5718-4
20 TELECOMMUNICATION INFORMATION:
21 TELEPHONE: 919-581-5140
22 TELEFAX: 919-861-3175
23 TELEX: 575102
24 INFORMATION FOR SEQ ID NO: 20:
25 SOURCE CHARACTERISTICS:
26 ORGANISM: Homo sapiens
27 TYPE: amino acid
28 STRANDNESS:
29 TOPOLOGY: linear
30 MOLECULE TYPE: protein
31 GS-08-810-005-20
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33 Query Match 7.24; Score 174; DB 3; Length 35;
34 Best Local Similarity 85.7%; Pred.No. 7.4e-10;
35 Matches 30; Conservative 2; Mismatches 3; Indels 0;
36
37 QY 75 NVCRRGKTVLVAAGNAPGVCGVHGFGSGNR 113
38 DB 1 NVCRRGKTLVMAAGNAKPGVGCHONGFSNGK 35
39
40 RESULT 14
41 US-08-810-005-21
42 Sequence 21 Application US/08810009
43 TITLE: Protein
44 GENERAL INFORMATION:
45 APPLICANT: Briggs, Steven P.
46 APPLICANT: Tohaz, Gurmukh S.
47 APPLICANT: Gray, John
48 INVENTION FIELD: CELL DEATH AND DISEASE RESISTANCE IN PLANTS
49 TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
50 NUMBER OF SEQUENCES: 65
51 CORRESPONDENCE ADDRESSES:
52 ADDRESSEES: BELL, SELTZER, PARK & GIBSON
53 DRAWER: P.O.
54 CITY: Charlotte
55 STATE: NC 6211437th Carolina
56 COUNTRY: USA
57 ZIP: 28234
58 COMPUTER READABLE FORM:
59 MEDIUM TYPE: Floppy disk
60 COMPUTER: IBM PC compatible
61 OPERATING SYSTEM: PC-DOS/MS-DOS
62 COMPILED ON DATE: 08/08/81, Version #1.30
63 CURRENT APPLICATION DATA: Release #1.0, Version #1.30
64 APPLICATION NUMBER: US/08/810,009
65 FILING DATE: 04-MAR-1987
66 CLASSIFICATION: 800
67 ATTORNEY/AGENT INFORMATION:
68 NAME: Selzer, Park & Gibson
69 REGISTRATION NUMBER: 32,943

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/ REFERENCE/DOCKET NUMBER: 5718-4
/ TELECOMMUNICATION INFORMATION:
/   TELEPHONS: 919-881-3140
/   TELEFAX: 919-881-3175
/   MAILING ADDRESS:
/   INFORMATION FOR SEQ ID NO: 21:
/     SEQUENCE CHARACTERISTICS:
/       LENGTH: 35 amino acids
/       TYPE: amino acid
/       TOPOLOGY: linear
/     MOLECULE TYPE: protein
/
/ US-08-810-009-21
/
/ Query Match          7.0% Score 166, DB 3; Length 35;
/   Identity Similarity 80%; From Date-09-25-91
/   Matches 28; Conservative 3; Mismatches 4; Indels 0; Gaps 0;
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/ QY 79 NVCRHGKTLVSEAGNAGKGVCSHGWFSGE 113
/   |||||:||||:||||:||||:||||:||||:
/   1 NVCRHGKTLVDENGNKGPVCHGHWGTSNKR 35
/
/ DD
/
/ RESULT 15
/ US-09-252-991A-27100
/   PCT No. 09/252,991 Application US/09252991A
/   Patent No. 6551793
/   GENERAL INFORMATION:
/     APPLICANT: Marc J. Rubenfield et al.
/     TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
/     TITLE OF PUBLICATION: PUBLISHED IN THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
/     CURRENT FILING DATE: 1999-02-18
/     PRIOR APPLICATION NUMBER: US 60/074,788
/     PRIOR FILING DATE: 1998-02-18
/     PCT APPLICATION NUMBER: US 60/094,190
/     PRIOR FILING DATE: 1998-07-27
/     NUMBER OF SEQ ID NOS: 33142
/     SEQ ID NO 27100
/     LENGTH: 629
/     TYPE: Pkt Pseudomonas aeruginosa
/
/ US-09-252-991A-27100

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Search completed: December 9, 2003, 15:45:52
Job time : 13 secs

US-09-252-991A-31367

Patent NO. 6551795
GENERAL INFORMATION:
PUBLISHED AS: SUBFIELD OF: 31
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
FILE REFERENCE: 107196.136
CURRENT PUBLICATION NUMBER: US/09/252,991A
PRIORITY APPLICATION NUMBER: US 60/074,788
PRIORITY FILING DATE: 1998-02-18
PRIORITY APPLICATION NUMBER: US 60/094,190
PRIORITY FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 31367
LENGTH: 463
ORGANISM: Pseudomonas aeruginosa
US - 09-252-991A-31367

Query Match 16.94; Score 406.5; DB 4; Length 463;
Best Local Similarity 25.08; Pred. No. 4.2e-31;
Matches 110; Conservative 69; Mismatches 149; Indels 51; Gaps 17;

23 DEELFQHELKTI FARNWLF LTHDSLIPAGDYVVTAKMGIDEVIVSRONDGSI RAFLNVCR 82

[illegible]

38 DPKLFELMKHIFBGNWVYLAHESQVAGVNDYLTQTIGRQSIVIAARNRDGQLNAFINACS 97

83 HRGKTLVSVEAGNAKGFVCSYHGWGFGSNGELQSV--PFEKDLYGESLNKKCLG--LKE 137

98 HRGAMT.CRHKSQNPSSVTCPEHICWTNNSQVTVKTRDAPC-VPOQVAY

CEGSHDLTR

138 VARVSPFHGFIYGCDFQEAAPLMDYLGDAAWYLEPMFKHS-GGLELVGPPGKVVIKANWK 196

db
db
155 VARFESYRGFLFGSLNPDVRPLABHIGESAKIIDMIVDOSPEGLEVT.RGSSSYVVEGNFK 214

ALL NEW SCIENCE MAGAZINE
4.00 5.00 6.00 7.00 8.00 9.00 10.00 11.00 12.00 13.00 14.00 15.00 16.00 17.00 18.00 19.00 20.00 21.00 22.00 23.00 24.00 25.00 26.00 27.00 28.00 29.00 30.00 31.00 32.00 33.00 34.00 35.00 36.00 37.00 38.00 39.00 40.00 41.00 42.00 43.00 44.00 45.00 46.00 47.00 48.00 49.00 50.00 51.00 52.00 53.00 54.00 55.00 56.00 57.00 58.00 59.00 60.00 61.00 62.00 63.00 64.00 65.00 66.00 67.00 68.00 69.00 70.00 71.00 72.00 73.00 74.00 75.00 76.00 77.00 78.00 79.00 80.00 81.00 82.00 83.00 84.00 85.00 86.00 87.00 88.00 89.00 90.00 91.00 92.00 93.00 94.00 95.00 96.00 97.00 98.00 99.00 100.00 101.00 102.00 103.00 104.00 105.00 106.00 107.00 108.00 109.00 110.00 111.00 112.00 113.00 114.00 115.00 116.00 117.00 118.00 119.00 120.00 121.00 122.00 123.00 124.00 125.00 126.00 127.00 128.00 129.00 130.00 131.00 132.00 133.00 134.00 135.00 136.00 137.00 138.00 139.00 140.00 141.00 142.00 143.00 144.00 145.00 146.00 147.00 148.00 149.00 150.00 151.00 152.00 153.00 154.00 155.00 156.00 157.00 158.00 159.00 160.00 161.00 162.00 163.00 164.00 165.00 166.00 167.00 168.00 169.00 170.00 171.00 172.00 173.00 174.00 175.00 176.00 177.00 178.00 179.00 180.00 181.00 182.00 183.00 184.00 185.00 186.00 187.00 188.00 189.00 190.00 191.00 192.00 193.00 194.00 195.00 196.00 197.00 198.00 199.00 200.00 201.00 202.00 203.00 204.00 205.00 206.00 207.00 208.00 209.00 210.00 211.00 212.00 213.00 214.00 215.00 216.00 217.00 218.00 219.00 220.00 221.00 222.00 223.00 224.00 225.00 226.00 227.00 228.00 229.00 230.00 231.00 232.00 233.00 234.00 235.00 236.00 237.00 238.00 239.00 240.00 241.00 242.00 243.00 244.00 245.00 246.00 247.00 248.00 249.00 250.00 251.00 252.00 253.00 254.00 255.00 256.00 257.00 258.00 259.00 260.00 261.00 262.00 263.00 264.00 265.00 266.00 267.00 268.00 269.00 270.00 271.00 272.00 273.00 274.00 275.00 276.00 277.00 278.00 279.00 280.00 281.00 282.00 283.00 284.00 285.00 286.00 287.00 288.00 289.00 290.00 291.00 292.00 293.00 294.00 295.00 296.00 297.00 298.00 299.00 300.00 301.00 302.00 303.00 304.00 305.00 306.00 307.00 308.00 309.00 310.00 311.00 312.00 313.00 314.00 315.00 316.00 317.00 318.00 319.00 320.00 321.00 322.00 323.00 324.00 325.00 326.00 327.00 328.00 329.00 330.00 331.00 332.00 333.00 334.00 335.00 336.00 337.00 338.00 339.00 340.00 341.00 342.00 343.00 344.00 345.00 346.00 347.00 348.00 349.00 350.00 351.00 352.00 353.00 354.00 355.00 356.00 357.00 358.00 359.00 360.00 361.00 362.00 363.00 364.00 365.00 366.00 367.00 368.00 369.00 370.00 371.00 372.00 373.00 374.00 375.00 376.00 377.00 378.00 379.00 380.00 381.00 382.00 383.00 384.00 385.00 386.00 387.00 388.00 389.00 390.00 391.00 392.00 393.00 394.00 395.00 396.00 397.00 398.00 399.00 400.00 401.00 402.00 403.00 404.00 405.00 406.00 407.00 408.00 409.00 410.00 411.00 412.00 413.00 414.00 415.00 416.00 417.00 418.00 419.00 420.00 421.00 422.00 423.00 424.00 425.00 426.00 427.00 428.00 429.00 430.00 431.00 432.00 433.00 434.00 435.00 436.00 437.00 438.00 439.00 440.00 441.00 442.00 443.00 444.00 445.00 446.00 447.00 448.00 449.00 450.00 451.00 452.00 453.00 454.00 455.00 456.00 457.00 458.00 459.00 460.00 461.00 462.00 463.00 464.00 465.00 466.00 467.00 468.00 469.00 470.00 471.00 472.00 473.00 474.00 475.00 476.00 477.00 478.00 479.00 480.00 481.00 482.00 483.00 484.00 485.00 486.00 487.00 488.00 489.00 490.00 491.00 492.00 493.00 494.00 495.00 496.00 497.00 498.00 499.00 500.00 501.00 502.00 503.00 504.00 505.00 506.00 507.00 508.00 509.00 510.00 511.00 512.00 513.00 514.00 515.00 516.00 517.00 518.00 519.00 520.00 521.00 522.00 523.00 524.00 525.00 526.00 527.00 528.00 529.00 530.00 531.00 532.00 533.00 534.00 535.00 536.00 537.00 538.00 539.00 540.00 541.00 542.00 543.00 544.00 545.00 546.00 547.00 548.00 549.00 550.00 551.00 552.00 553.00 554.00 555.00 556.00 557.00 558.00 559.00 560.00 561.00 562.00 563.00 564.00 565.00 566.00 567.00 568.00 569.00 570.00 571.00 572.00 573.00 574.00 575.00 576.00 577.00 578.00 579.00 580.00 581.00 582.00 583.00 584.00 585.00 586.00 587.00 588.00 589.00 590.00 591.00 592.00 593.00 594.00 595.00 596.00 597.00 598.00 599.00 600.00 601.00 6

197 APAENFVGDAYHVG---WTHASS-----LRSGESIFSSLAGNAALPPEGAGLQ 241

dbb 215 LTAEN-GADGYHVS VHVNNYAAATQSRQQRDAADPLRT-----MSAAGWAR---QGGGFY 265

[illegible]

242 MTSKYGSGMGLWDGYSGVHSADLVPE-LMAFGGAKQERLNKEIGDVRR-IYRSHLNCT 299

db 266 ---SFEHGMLWSRWAN-----PEDRPAF--ERRAELARDFGEARADWMIENSRLC 313

300 VEPNNSML-TCSGVFKVNPIDANTEVWTVATVEKTMDEPI KPPI ANDVOBPTCCDNCOW 350

[illegible]

314 LYPNVYLMDQFSSQIRIARPLSVDRTEITTYCIAPKGESAEARARRIRQYEDFFNVSGMA 373

359 ESDDNDNMETASQNGKKYQ 377

274

Qy	20	HHODEELFONELEKTIIPABNKLEITHOSLIPAPQOYVTAANGIDEBIVQNDQSGSTAFAN	79
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Dy	91	
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Dy	93	
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Dy	97	
Qy	98	
Dy	99	
Qy	100	

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RESULT 4
US-09-252-991A-31385
/ SEQUENCE 31385, APPLICATION US/09252991A
/ TITLE INVENTION:
/ GENERAL INFORMATION:
/ APPLICANT: Marc J. Rubenfield et al.
/ TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
/ TYPE OF INVENTION:
/ FILING DATE: 1998-07-27
/ FILE REFERENCE: 107196.136
/ CURRENT APPLICATION NUMBER: US/09/252.991A
/ PRIORITY DATE: 1999-02-18
/ PRIORITY APPLICATION NUMBER: 09/0074.788
/ PRIOR FILING DATE: 1998-02-18
/ PRIOR APPLICATION NUMBER: US 60/094,190
/ PRIOR FILING DATE: 1998-07-27
/ INVENTOR:
/ SEQ ID NO 31385: 33142
/ LENGTH: 466
/ TYPE: exp. Pseudomonas aeruginosa
US-09-252-991A-31385

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Query Match	Score	384.5	DB	4	Length	466
Best Local Similarity	27.36	Prod No. 68-29				
Matches 122	Conservative %	Mismatches 176	Indels 73	Gaps 19		
Qy	Qy	Qy	Qy	Qy	Qy	Qy
23	DEEQLGKLTATYFANMKEFLHOSITAPGQVNTVMYVGRSMOGSISLALNVCYR	82				
39	EPFELFIMBELFEKMIYACHESLARHPFVLTRAGROPVLIVTQSGQHLVADQ	98				
83	HKGLTIVSEVAGNAGFVSVTHQFQSGKSGV--PFEDYIGBSLKKKICGLGEKVAR	140				
99	HGATLVNYYKNGSTFCTPHAKYKGRULVYVAGE--YFEGFATDNRKLR	154				
141	VSRFPGFYCYCPQEA--PEFLMDYLDQAWYLEMFKH--SGCLVEYFGKQYVYKANKKA	197				
155	IGTQGTGTVSLVDGQDPLVQKRVFLDKLVPAQSGFSEFVSTVYTFYSGKML	214				
198	PAENFGVDYGVHGTTHASSLSSGYSIFSSLAGNAAPFEGAGQNT--SKYSGSGYQ	253				

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Db 215 QNENGL-DGHTVSTHNTV-...-ATVQKQVVERGQVANTLYKSGAGDANT 266
Qy 254 --MDYSGYSL-...-ADVPELMFAGKQKELKIGDVAIVYRSHL 296
Db 267 DOWSPFANGCHVPEENPFAVGTATVPRVLA-...-EYQANRANMREHL 315
Qy 297 -NCTVPFNSM--TCSGVKVNNDIDANTVMTAL-VEKMDPELRLAD-...SV 348
Db 316 RNKLKYSFVFDIOISQKRLVPLAWRTVSGCIGVCKESDARNKIQEDPFFNV 375
Qy 349 QRTGCPAGFVSDNNMNETSANGKYSQESDLSNLSGSEVDGVAPOVGVKSR 408
Db 376 SOMQTP-...-DOLATFEGKQFQALZERMSD-...-SGHGKHLGATNGFQALGAPL 427
Qy 409 --GETSYGVFVAVNUSNWSASF 432
Db 438 LNVGELTHEGLYNGQAH-...-MRRF 449

RESULT 5
US-09-328-352-7581
; Sequence 352, Application US/09328352
; Patent No. 6551795
; GENERAL INFORMATION:
; APPLICANT: Gary L. Breton et al.
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
; TITLE OF INVENTION: ACINETOBACTER FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: GTC09-03PA
; CURRENT APPLICATION NUMBER: US/09/328,352
; PRIOR FILING DATE: 1999-06-04
; PRIOR FILING DATE: 1999-06-04
; SEQ ID NO 7581
; TYPE: PRN
; LENGTH: 471
; ORGANISM: Acinetobacter baumannii
US-09-328-352-7581

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Query Match 14.94; Score 359; DB 4; Length 471;
Best Local Similarity 25.34; Pred. No. 1.96-26;
Matches 114; Conservative 68; Mismatches 184; Indels 78; Gaps 14;

Qy 23 DRELFOBKLTFAHMLTSLAPADQVYVAMGDIIVSRNDGSDPAFANVCR 82
Db 35 EPELDMGSLTEKMTTACHSESLPNNDITVTCQPIIVSRDNGELANVANCE 94
Qy 83 HRGKTLVSAGAGAGVCSYHGQFSGNLSQVPEFKDLSGSLKCKLGLVAYVLE 142
Db 95 HNGMTLVAGAGGCTTPFHAKTGLDQVATKYPAS-ICEPDHVSRLQAG-KRIA 152
Qy 143 SFHSTVYGCFOEA-PEALADYADANTLYLPEWPS--GGLHVGFPKGVTKANWAPA 199
Db 153 STRGVFVSLVDTGSDTGLDQKLPDLNMTSPTELEVLQKGSSTVPAGNKKM 212
Qy 200 ENFGADNHWGHT--ASLSASGESIPSSLAGMAALPEAGLQNT--SKYSGNGLW 254
Db 213 ENGL-DGHTVSTHNTVTVQKQVNAS-...-KEALDITLYSKGAGSDST 262
Qy 255 DQSYSGVSHADLV-...-PELMFAGKQKELKIGDVAIVYRSHL-NCTVPFNSM 306
Db 263 DQWSPKNGSVLFSMDPEPTVQVSTVVEKMDPELRLADLSQVGTGAPAGVSDNDN 322
Qy 307 L-TCSGVKVNNDIDANTVMTALVEKMDPELRLADLSQVGTGAPAGVSDNDN 365
Db 332 MDQSLSQKRVVRVAVNMTVTSQGVK-...-G 352
Qy 366 METASQKYSQESDLSNLSGSEVDGVAPOVGVKSGAGTSVTFVAVNYS 425
Db 353 ESTEARNRIRIQEDPFFNVGSLTPTDGL-...-VEFKDQKQFQAL- 394
Qy 426 SNAWLEHASTWELTLEKVT 447
Db 395 -SRMSDSISRCQSVGATONS 415

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RESULT 6
US-09-252-991A-25088
; Sequence 2508, Application US/09252991A
; Patent No. 6551795
; GENERAL INFORMATION:
; APPLICANT: Marc J. Rubenfield et al.
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
; TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: GTC09-03PA
; CURRENT APPLICATION NUMBER: US/09/252,991A
; PRIOR FILING DATE: 1999-02-18
; PRIOR FILING DATE: 1999-02-18
; PRIOR FILING DATE: 1999-02-18
; PRIOR FILING DATE: 1998-07-27
; PRIOR FILING DATE: 1998-07-27
; NUMBER OF SEQ ID NOS: 33142
; SEQ ID NO 25088
; TYPE: PRN
; LENGTH: 425
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-25088

Query Match 14.28; Score 341.5; DB 4; Length 425;
Best Local Similarity 27.48; Pred. No. 8.2e-25;
Matches 114; Conservative 71; Mismatches 178; Indels 53; Gaps 15;

Qy 25 ELFOELKTLFANMLFHOSILIPADQVYVAMGDIIVSRNDGSDPAFANVCR 84
Db 25 ELHREHLEHFDSNLYAHLSLSEPCDFTTVDGNNLIIGRADGSPAVTACARR 84
Qy 85 GKTLSVSEAGAKGVCSYHGQFSGNLSQVPEFKDLSGSLKCKLGLVAYVLE 143
Db 85 GAKVCAEPGQSPFTCFHGTWYDSGSLGLP-DKAAVQRA--GCCHPELSTVPHIA 141
Qy 144 -FHGTYGCTFOEAPELMDYLGDAWLYLPEWPS--GGLHVGFPKGVTKANWAPEN 201
Db 142 VYFNFLFHYAARQSLTYLQADYDILDCQSSALHIFGQFHSIKANWALLEN 201
Qy 203 FVGDVNVCHVTHASSLSQSSIFSSLAGMAALPEAGLQNTKSGVMTWQSVQVH 261
Db 202 QV-DAYHLPANGLVLEYLNTL-...-GTPFSEHKGHG--BALONGHALII 246
Qy 263 8-...-ADLVPF-LANQVAKORLKEVIGUVR-LYASHACTVFN--N 304
Db 247 SGPSTKVPANPSPLEPFANLAKSTAKFELVRFQCAADLARTNKSIFTFNVLIN 306
Qy 308 SMTCGCVFVNDIDANTVMTALVEKMDPELRLADLSQVGTGAPAGVSDND 364
Db 307 DTLGILN-IRSFPTFAEDVYVWAGFPAZETREARLGLISFGFGSGFDVDE 364
Qy 365 METASQKYSQESDLSNLSGSEVDGVAPOVGVKSGAGTSVTFVAVNYS 420
Db 365 ILSSCQ--RAYNH-...-ALAYGSDPSRG--NGPATERHVDSEQNGFWRW 407

RESULT 7
US-09-252-991A-17164
; Sequence 17164, Application US/09252991A
; Patent No. 6551795
; GENERAL INFORMATION:
; APPLICANT: Rubenfield et al.
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
; TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: GTC09-03PA
; CURRENT APPLICATION NUMBER: US/09/252,991A
; PRIOR FILING DATE: 1999-02-18
; PRIOR FILING DATE: 1998-02-18
; PRIOR FILING DATE: 1998-02-18
; PRIOR FILING DATE: 1998-07-27
; NUMBER OF SEQ ID NOS: 33142

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US-09-004-393B-4
; Sequence 4, Application US/09004393B
; Patent No. 6310271
; GENERAL INFORMATION:
; APPLICANT: Hanson, D. Andrew
; APPLICANT: Rathinasabapathi, Bala
; APPLICANT: Burnet, Michael
; TITLE OF INVENTION: Polynucleotides Encoding Choline Monooxygenase and
; TITLE OF INVENTION: Plants Transformed Therewith
; FILE REFERENCE: US-162
; CURRENT APPLICATION NUMBER: US/09/004.393B
; CURRENT FILING DATE: 1998-01-08
; PRIOR APPLICATION NUMBER: 60/035,147
; PRIOR FILING DATE: 1997-01-08
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 4
; LENGTH: 446
; TYPE: PRT
; ORGANISM: Beta vulgaris
US-09-004-393B-4
Query Match 9.33; Score 224; DB 4; Length 446;
Best Local Similarity 27.44; Pred. No. 2,6e-13;
Matches 58; Conservative 37; Mismatches 97; Indels 20; Gaps 6;
QY 11 EQLGKQHLHDEGLFQHLATFANRWPLFHUSLIDPAGSDVYAKMIDIVNSON 70
DB 99 EDALAPPSWTYTFAPYFHELRIFPKGVAGSYGVKQKQIFFGSLZNVYLSRQ 158
QY 71 GSDIATKNSHGRKTLVTPARKAKYCSHMCNCGNSBELSVFPKDLGSELMK 130
DB 159 QSLERAFNVCHRA-SILACSGKSCVCFVHYGLDASLAKA--SKATKONLP 215
QY 131 KULGKXVAVPFPFQVCTQDAPPLMD----YLGA----AYLPEWFMRSQGLE 181
DB 216 KELGLAPL-KVABGFFLISLSDANADWTETGSENVKAFAPDLAFHRES 274
QY 182 LWGPPGKRVTKAKAPAEFVGDYHVGWTH 213
DB 275 F-----PHECNKRVCFNLDLSSNVVPAH 299
RESULTS
US-09-004-393B-2
; Sequence 2, Application US/09004393B
; Patent No. 6310271
; GENERAL INFORMATION:
; APPLICANT: Hanson, D. Andrew
; APPLICANT: Rathinasabapathi, Bala
; APPLICANT: Burnet, Michael
; TITLE OF INVENTION: Polynucleotides Encoding Choline Monooxygenase and
; TITLE OF INVENTION: Plants Transformed Therewith
; FILE REFERENCE: US-162
; CURRENT APPLICATION NUMBER: US/09/004.393B
; CURRENT FILING DATE: 1998-01-08
; PRIOR APPLICATION NUMBER: 60/035,147
; PRIOR FILING DATE: 1997-01-08
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 2
; LENGTH: 439
; TYPE: PRT
; ORGANISM: Spinacia oleracea
US-09-004-393B-2
Query Match 9.33; Score 223; DB 4; Length 439;
Best Local Similarity 30.41; Pred. No. 3,3e-11;
Matches 58; Conservative 38; Mismatches 83; Indels 14; Gaps 7;
QY 27 FQHLKTPANWLFTHSLDLPADQVYIARMGIDVIVSGNSDSTAFVANCHECK 86
DB 108 YSHELLRIFKGVAGVAGISQIKENQYFFTSGLWVLEFVSGRGRHNVNCHRA- 166
QY 87 TLVSVAGNAGPVCSYHMGFSGNSBELSVFPKDLGSELMKCLGKAVRVSFHG 146
DB 167 SILACSGKSCVCFVHYGLDASLAKA--SKATKONLP 215
QY 147 FYVCTQDAPPLMD----YLGAADWYFLPEWFMRS--GSELELVGPPKRVTKAKAPAE 200
DB 204 FYVSDIATKNSHGRKTLVTPARKAKYCSHMCNCGNSBELSVFPKDLGSELMK 279
QY 221 NTLSDRLSLEGGQDVWETMLGTSA---DYGAHAFDPSLQFI-HRSEFFPMBSNKNIFSD 279
DB 280 NYLDSYHVPYAH 292
RESULTS
US-08-810-009-13
; Sequence 19, Application US/08810009
; Patent No. 6211437
; GENERAL INFORMATION:
; APPLICANT: Biogen, Steven P.
; APPLICANT: Johal, Gurmukh S.
; APPLICANT: Gray, John
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
; TITLE OF INVENTION: CELL DEATH AND DISEASE RESISTANCE IN PLANTS
; NUMBER OF SEQUENCES: 65
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: BELL, SELTZER, PARK & GIBSON
; ATTORNEY/AGENT INFORMATION:
; CITY: Charlotte
; STATE: No. 6211437th Carolina
; COUNTRY: USA
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; CURRENT APPLICATION DATA: Patentin Release #1.0, Version #1.30
; APPLICATION NUMBER: US/08/810,009
; FILING DATE: 04-MAR-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Spruill, W. Murray
; REGISTRATION NUMBER: 32,943
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 919-881-3140
; TELEFAX: 919-881-3175
; TELEX: 575102
; INTERNATIONAL ID NO: 19;
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; STRANDS: 1
; MOLECULE TYPE: protein
US-08-810-009-19
Query Match 7.78; Score 185; DB 3; Length 35;
Best Local Similarity 94.38; Pred. No. 3,3e-11;
Matches 33; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
QY 79 NYCHHGTGNTLVNVLGANGKPVCSYHMGFSGNSK 113
DB 1 NYCHHGTGNTLVNVLGANGKPVCSYHMGFSGNSK 35
RESULTS
US-08-810-009-20
; Sequence 20, Application US/08810009
; Patent No. 6211437
; GENERAL INFORMATION:
; APPLICANT: Biogen, Steven P.

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/ APPLICANT: Johal, Gurmukh S.
/ APPLICANT: Gray, John
/ TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
/ TITLE OF INVENTION: CELL DEATH AND DISEASE RESISTANCE IN PLANTS
/ NUMBER OF SEQUENCES: 65
/ CORRESPONDENCE ADDRESS:
/ BEL, SEUTZER, PARK & GIBSON
/ STREET: P.O. Box 34009
/ CITY: Charlotte
/ STATE: No. 6211437th Carolina
/ COUNTRY: USA
/ FILING DATE: 04-MAR-1997
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ COMPUTER: IBM PC compatible
/ SOFTWARE: IBM PC-DOS/MS-DOS
/ SOFTWARE PUBLICATION DATA: Issue #1.0, Version #1.30
/ CURRENT APPLICATION NUMBER: US/08/810, 009
/ FILING DATE: 04-MAR-1997
/ COUNTRY: USA
/ APPLICANT/AGENT INFORMATION:
/ NAME: Spruill, M. Murray
/ REGISTRATION NUMBER: 32,943
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: 919-881-3140
/ TELEFAX: 919-881-3175
/ INFORMATION FOR SEQ ID NO: 20:
/ TYPE: amino acid
/ LENGTH: 35 amino acids
/ TOPOLOGY: linear
/ MOLECULE TYPE: protein
/ STRANDEDNESS: acid
/ US-08-810-009-20
/
/ Query Match
/ Best Local Similarity 85.7%; DB 3; Length 35;
/ Matches 30; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
/
/ QY 79 NVCHRGKTLVNAAGNAGKPVCGYGVNGYGSNKG 113
/ DB 1 NVCHRGKTLVNAAGNAGKPVCGYGVNGYGSNKG 35
/
/ RESULT 14
/ US-09-810-009-21
/ Sequence 21, Application US/08810009
/ General Information:
/ APPLICANT: Briggs, Steven P.
/ APPLICANT: Johal, Gurmukh S.
/ APPLICANT: Gray, John
/ TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
/ TITLE OF INVENTION: CELL DEATH AND DISEASE RESISTANCE IN PLANTS
/ NUMBER OF SEQUENCES: 65
/ CORRESPONDENCE ADDRESS:
/ BEL, SEUTZER, PARK & GIBSON
/ STREET: P.O. Box 34009
/ CITY: Charlotte
/ STATE: No. 6211437th Carolina
/ COUNTRY: USA
/ FILING DATE: 04-MAR-1997
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ COMPUTER: IBM PC compatible
/ SOFTWARE: IBM PC-DOS/MS-DOS
/ SOFTWARE PUBLICATION DATA: Issue #1.0, Version #1.30
/ CURRENT APPLICATION NUMBER: US/08/810, 009
/ FILING DATE: 04-MAR-1997
/
/ Query Match
/ Best Local Similarity 85.7%; DB 3; Length 35;
/ Matches 30; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
/
/ QY 79 NVCHRGKTLVNAAGNAGKPVCGYGVNGYGSNKG 113
/ DB 1 NVCHRGKTLVNAAGNAGKPVCGYGVNGYGSNKG 35
/
/ RESULT 15
/ US-09-252-991A-27100
/ Sequence 27100, Application US/09252991A
/ General Information:
/ APPLICANT: Marc J. Rubenfield et al.
/ TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
/ TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
/ FILING DATE: 07/11/91
/ CURRENT APPLICATION NUMBER: US/09/252,991A
/ CURRENT FILING DATE: 1999-02-18
/ PRIOR APPLICATION NUMBER: US 60/074,788
/ PRIOR APPLICATION NUMBER: US 60/094,190
/ PRIOR FILING DATE: 1998-07-27
/ NUMBER OF SEQ ID NOS: 33142
/ SEQ ID NO: 33100
/ LENGTH: 629
/ TYPE: PRT
/ ORGANISM: Pseudomonas aeruginosa
/ US-09-252-991A-27100
/
/ Query Match
/ Best Local Similarity 6.0%; DB 4; Length 629;
/ Matches 65; Conservative 41; Mismatches 103; Indels 59; Gaps 13;
/
/ QY 4 NKLIVSESGSCKELLL--HGDEELFQHEKLTARN--MLFTDSLLFAPCYTAM 59
/ DB 247 SRILPQVKRLTWISCLNHWIQLQKREDPFPKPAWVACTPDLAKP---LGR 303
/ QY 60 GIDETVTVSRKQSTAFELVNVCHRSK--TLVSTVGNKGFVCSHWGSGSLQSV 117
/ DB 304 CDEWVVFYKGRVVALEDFCHRGALSLGFVEZ---VLVCTHGLANGEDGTAM 360
/ QY 118 PFEDLVGKSLKCKCLAEVAV--VESFPGIY---GCFQEPAPIMLYGDAMYLEP 172
/ DB 361 P---GVRVGFCEIFRFVQKGFVWVFWFGESQADALLPL---ENASEP 407
/ QY 173 MFRISGRLVMPGPKVYKAWKAPNVPQDAVYGVMTASSL-----R 218
/ DB 408 DMWYGGI-----THCYDLVMDLMDL-DLTHETVWASSLQGEIDEPATVFE 458
/ QY 219 SGESIFSSLACNALPP-----SEAGL 240
/ DB 459 GQVTVTSRHWQVWAPFPFWALGNSL 486

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Wed Dec 10 08:12:34 2003

us-09-843-250-32.ra1

Page 7

Search completed: December 9, 2003, 15:45:53
Job time : 13 secs

Db 361 DDDNNMTASGKXKQSRDLSNLGFGEDVGVDAVFGVVKSAIGHTSVKGFTRAY 420
 QY 421 QANVSSNNAFERASSTWTELTKTDR 449
 Db 421 QANVSSNNAFERASSTWTELTKTDR 449

RESULT 4
 US-09-843-250-58
 ; Sequence 58, Application US/09843250
 ; Publication No. US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Parales, R.
 ; INVENTOR: Gibson, D.
 ; APPLICANT: Remick, S.
 ; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
 ; FILE REFERENCE: 875 006882 US/09/843,250
 ; CURRENT APPLICATION NUMBER: US/09/843,250
 ; PRIORITY FILING DATE: 2001-04-26
 ; PRIOR FILING DATE: PCT/US99/25079
 ; PRIOR FILING DATE: 1998-10-26
 ; PRIOR FILING DATE: 1998-10-26
 ; NUMBER OF SEQ ID NOS: 65
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO: 58
 ; LENGTH: 449
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURES:
 ; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.58.
 US-09-843-250-58

Query Match 99.74; Score 2402; DB 11; Length 449;
 Best Local Similarity 99.84; Pred. No. 3.5e-226;
 Matches 448; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
 QY 1 MYNNKILVSSGSLGQMLHDSBELFOHELTIPANMLFIHDSLIIPAGDVTYRNG 60
 Db 1 MYNNKILVSSGSLGQMLHDSBELFOHELTIPANMLFIHDSLIIPAGDVTYRNG 60
 QY 61 IDIVIVSRQDSITAFVLCNCRKTLVSFVAGNAGFVCSHGFGSGNGLQSPFPE 120
 Db 61 IDIVIVSRQDSITAFVLCNCRKTLVSFVAGNAGFVCSHGFGSGNGLQSPFPE 120
 QY 121 KDLYGSLNKKCLGKLVARVESFSGFTYCTQDPAFLMDYLGDAWYLPNFKHSGGL 180
 Db 121 KDLYGSLNKKCLGKLVARVESFSGFTYCTQDPAFLMDYLGDAWYLPNFKHSGGL 180
 QY 181 ELVGPFGKVIANKKAPAEFVGDHVGWHTHASSLGSGIFSSLAGNALPPEGAGL 240
 Db 181 ELVGPFGKVIANKKAPAEFVGDHVGWHTHASSLGSGIFSSLAGNALPPEGAGL 240
 QY 241 QMTKSGSGVGLWDCGVSISADLVPELAPGAGQKELKEIGDVARIVYSLNCTV 300
 Db 241 QMTKSGSGVGLWDCGVSISADLVPELAPGAGQKELKEIGDVARIVYSLNCTV 300
 QY 301 FNNMSLTCGKVGKVFNFIDANTIEWTVAIVKQMPEDLKRLAUSVQRTGAPGMS 360
 Db 301 FNNMSLTCGKVGKVFNFIDANTIEWTVAIVKQMPEDLKRLAUSVQRTGAPGMS 360
 QY 361 DDNNMTASGKXKQSRDLSNLGFGEDVGVDAVFGVVKSAIGHTSVKGFTRAY 420
 Db 361 DDNNMTASGKXKQSRDLSNLGFGEDVGVDAVFGVVKSAIGHTSVKGFTRAY 420
 QY 421 QANVSSNNAFERASSTWTELTKTDR 449
 Db 421 QANVSSNNAFERASSTWTELTKTDR 449

RESULT 5

US-09-843-250-2
 ; Sequence 58, Application US/09843250
 ; Publication No. US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Parales, R.
 ; INVENTOR: Gibson, D.
 ; APPLICANT: Remick, S.
 ; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
 ; FILE REFERENCE: 875 006882 US/09/843,250
 ; CURRENT APPLICATION NUMBER: PCT/US99/25079
 ; PRIORITY FILING DATE: 2001-04-26
 ; PRIOR FILING DATE: PCT/US99/25079
 ; PRIOR FILING DATE: 1998-10-26
 ; PRIOR FILING DATE: 1998-10-26
 ; NUMBER OF SEQ ID NOS: 65
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO: 2
 ; LENGTH: 449
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURES:
 ; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.1
 US-09-843-250-2

Query Match 99.68; Score 2401; DB 11; Length 449;
 Best Local Similarity 99.84; Pred. No. 3.5e-226;
 Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 QY 1 MYNNKILVSSGSLGQMLHDSBELFOHELTIPANMLFIHDSLIIPAGDVTYRNG 60
 Db 1 MYNNKILVSSGSLGQMLHDSBELFOHELTIPANMLFIHDSLIIPAGDVTYRNG 60
 QY 61 IDIVIVSRQDSITAFVLCNCRKTLVSFVAGNAGFVCSHGFGSGNGLQSPFPE 120
 Db 61 IDIVIVSRQDSITAFVLCNCRKTLVSFVAGNAGFVCSHGFGSGNGLQSPFPE 120
 QY 121 KDLYGSLNKKCLGKLVARVESFSGFTYCTQDPAFLMDYLGDAWYLPNFKHSGGL 180
 Db 121 KDLYGSLNKKCLGKLVARVESFSGFTYCTQDPAFLMDYLGDAWYLPNFKHSGGL 180
 QY 181 ELVGPFGKVIANKKAPAEFVGDHVGWHTHASSLGSGIFSSLAGNALPPEGAGL 240
 Db 181 ELVGPFGKVIANKKAPAEFVGDHVGWHTHASSLGSGIFSSLAGNALPPEGAGL 240
 QY 241 QMTKSGSGVGLWDCGVSISADLVPELAPGAGQKELKEIGDVARIVYSLNCTV 300
 Db 241 QMTKSGSGVGLWDCGVSISADLVPELAPGAGQKELKEIGDVARIVYSLNCTV 300
 QY 301 FNNMSLTCGKVGKVFNFIDANTIEWTVAIVKQMPEDLKRLAUSVQRTGAPGMS 360
 Db 301 FNNMSLTCGKVGKVFNFIDANTIEWTVAIVKQMPEDLKRLAUSVQRTGAPGMS 360
 QY 361 DDNNMTASGKXKQSRDLSNLGFGEDVGVDAVFGVVKSAIGHTSVKGFTRAY 420
 Db 361 DDNNMTASGKXKQSRDLSNLGFGEDVGVDAVFGVVKSAIGHTSVKGFTRAY 420
 QY 421 QANVSSNNAFERASSTWTELTKTDR 449
 Db 421 QANVSSNNAFERASSTWTELTKTDR 449

RESULT 6
 US-09-843-250-14
 ; Sequence 14, Application US/09843250
 ; Publication No. US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Parales, R.
 ; INVENTOR: Gibson, D.
 ; APPLICANT: Remick, S.
 ; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the

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FILE REFERENCE: 875.006182
CURRENT APPLICATION NUMBER: US/09/843.250
CURRENT FILING DATE: 2001-04-26
PRIOR APPLICATION NUMBER: PCT/US99/25079
PRIOR FILING DATE: 1998-10-26
PRIOR APPLICATION NUMBER: US 60/105,575
PRIOR FILING DATE: 1998-10-26
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSeq for Windows Version 4.0
SEQUENCE 2
LENGTH: 449
TYPE: PRT
ORGANISM: Artificial Sequence
OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:3.
US-09-843-250-34

Query Match      99.6%; Score 2401; DB 11; Length 449;
Beat Local Similarity 99.8%; Pred. No. 3.5e-226;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MYNNKILVSESGLSQGLHIGDELFQHELTIFARNMLFTHDSLIPAGDYVYAKNG 60
DB 1 MYNNKILVSESGLSQGLHIGDELFQHELTIFARNMLFTHDSLIPAGDYVYAKNG 60
QY 61 IDIVIVSRQDGSITAFINLCHRGKTLVSEAGNAGFVCSYHNGSGNSGLQVPE 120
DB 61 IDIVIVSRQDGSITAFINLCHRGKTLVSEAGNAGFVCSYHNGSGNSGLQVPE 120
QY 121 KOLYGSILANKKCLGLKEVARVESPHGTYGCFDQEPAPMDYLGDAWYLEPMFKHSGGL 180
DB 121 KOLYGSILANKKCLGLKEVARVESPHGTYGCFDQEPAPMDYLGDAWYLEPMFKHSGGL 180
QY 181 ELVGPCKVYIKANWQAPAINFGVDAVHGWTHASLSGESITSSLAGNALPPEGAGL 240
DB 181 ELVGPCKVYIKANWQAPAINFGVDAVHGWTHASLSGESITSSLAGNALPPEGAGL 240
QY 241 QMTSKYSGMGVLMDGYSGVSDALVPELMAFQGAQORLNKEIGDVARVYSHLACTV 300
DB 241 QMTSKYSGMGVLMDGYSGVSDALVPELMAFQGAQORLNKEIGDVARVYSHLACTV 300
QY 301 FPNNSMTCGQVFKVNPVINDTETWTVYAVEKDPELDELADSVQVGTGPAQWMS 360
DB 301 FPNNSMTCGQVFKVNPVINDTETWTVYAVEKDPELDELADSVQVGTGPAQWMS 360
QY 361 DDNNMETASQNGKYSQRELSLNLGFGEDVYGDVYFGVNSAIGETSYGTFRAY 420
DB 361 DDNNMETASQNGKYSQRELSLNLGFGEDVYGDVYFGVNSAIGETSYGTFRAY 420
QY 421 QAVYSSSWALPEFASSTWHTLNTKTDR 449
DB 421 QAVYSSSWALPEFASSTWHTLNTKTDR 449

RESULT 7
US-09-843-250-15
Sequence 15, Application US/09843250
Publication No. US20030022335A1
GENERAL INFORMATION:
APPLICANT: Paralel, R.
APPLICANT: Gibson, D.
APPLICANT: Resnick, S.
TITLE OF INVENTION: Naphthalene dioxygenase
FILE REFERENCE: 875.006182
CURRENT APPLICATION NUMBER: US/09/843.250
CURRENT FILING DATE: 2001-04-26
PRIOR APPLICATION NUMBER: PCT/US99/25079
PRIOR FILING DATE: 1998-10-26
PRIOR APPLICATION NUMBER: US 60/105,575
PRIOR FILING DATE: 1998-10-26
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSeq for Windows Version 4.0
SEQUENCE 15
LENGTH: 449
TYPE: PRT
ORGANISM: Pseudomonas sp.
OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:15.
US-09-843-250-32

Query Match      99.6%; Score 2401; DB 11; Length 449;
Beat Local Similarity 99.8%; Pred. No. 3.5e-226;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MYNNKILVSESGLSQGLHIGDELFQHELTIFARNMLFTHDSLIPAGDYVYAKNG 60
DB 1 MYNNKILVSESGLSQGLHIGDELFQHELTIFARNMLFTHDSLIPAGDYVYAKNG 60
QY 61 IDIVIVSRQDGSITAFINLCHRGKTLVSEAGNAGFVCSYHNGSGNSGLQVPE 120
DB 61 IDIVIVSRQDGSITAFINLCHRGKTLVSEAGNAGFVCSYHNGSGNSGLQVPE 120
QY 121 KOLYGSILANKKCLGLKEVARVESPHGTYGCFDQEPAPMDYLGDAWYLEPMFKHSGGL 180
DB 121 KOLYGSILANKKCLGLKEVARVESPHGTYGCFDQEPAPMDYLGDAWYLEPMFKHSGGL 180
QY 181 ELVGPCKVYIKANWQAPAINFGVDAVHGWTHASLSGESITSSLAGNALPPEGAGL 240
DB 181 ELVGPCKVYIKANWQAPAINFGVDAVHGWTHASLSGESITSSLAGNALPPEGAGL 240
QY 241 QMTSKYSGMGVLMDGYSGVSDALVPELMAFQGAQORLNKEIGDVARVYSHLACTV 300
DB 241 QMTSKYSGMGVLMDGYSGVSDALVPELMAFQGAQORLNKEIGDVARVYSHLACTV 300
QY 301 FPNNSMTCGQVFKVNPVINDTETWTVYAVEKDPELDELADSVQVGTGPAQWMS 360
DB 301 FPNNSMTCGQVFKVNPVINDTETWTVYAVEKDPELDELADSVQVGTGPAQWMS 360
QY 361 DDNNMETASQNGKYSQRELSLNLGFGEDVYGDVYFGVNSAIGETSYGTFRAY 420
DB 361 DDNNMETASQNGKYSQRELSLNLGFGEDVYGDVYFGVNSAIGETSYGTFRAY 420
QY 421 QAVYSSSWALPEFASSTWHTLNTKTDR 449
DB 421 QAVYSSSWALPEFASSTWHTLNTKTDR 449

RESULT 8
US-09-843-250-26
Sequence 26, Application US/09843250
Publication No. US20030022335A1
GENERAL INFORMATION:
APPLICANT: Paralel, R.
APPLICANT: Gibson, D.
APPLICANT: Resnick, S.
TITLE OF INVENTION: Naphthalene dioxygenase
FILE REFERENCE: 875.006182
CURRENT APPLICATION NUMBER: US/09/843.250
CURRENT FILING DATE: 2001-04-26
PRIOR APPLICATION NUMBER: PCT/US99/25079
PRIOR FILING DATE: 1998-10-26
PRIOR APPLICATION NUMBER: US 60/105,575
PRIOR FILING DATE: 1998-10-26
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSeq for Windows Version 4.0
SEQUENCE 26
LENGTH: 449
TYPE: PRT
ORGANISM: Pseudomonas sp.
OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:26.
US-09-843-250-26

Query Match      99.6%; Score 2401; DB 11; Length 449;
Beat Local Similarity 99.8%; Pred. No. 3.5e-226;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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FILE REFERENCE: 875.006182
CURRENT APPLICATION NUMBER: US/09/843.250
CURRENT FILING DATE: 2001-04-26
PRIOR APPLICATION NUMBER: PCT/US99/25079
PRIOR FILING DATE: 1998-10-26
PRIOR APPLICATION NUMBER: US 60/105,575
PRIOR FILING DATE: 1998-10-26
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSeq for Windows Version 4.0
SEQUENCE 2
LENGTH: 449
TYPE: PRT
ORGANISM: Artificial Sequence
OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:4.
US-09-843-250-15

Query Match      99.6%; Score 2401; DB 11; Length 449;
Beat Local Similarity 99.8%; Pred. No. 3.5e-226;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MYNNKILVSESGLSQGLHIGDELFQHELTIFARNMLFTHDSLIPAGDYVYAKNG 60
DB 1 MYNNKILVSESGLSQGLHIGDELFQHELTIFARNMLFTHDSLIPAGDYVYAKNG 60
QY 61 IDIVIVSRQDGSITAFINLCHRGKTLVSEAGNAGFVCSYHNGSGNSGLQVPE 120
DB 61 IDIVIVSRQDGSITAFINLCHRGKTLVSEAGNAGFVCSYHNGSGNSGLQVPE 120
QY 121 KOLYGSILANKKCLGLKEVARVESPHGTYGCFDQEPAPMDYLGDAWYLEPMFKHSGGL 180
DB 121 KOLYGSILANKKCLGLKEVARVESPHGTYGCFDQEPAPMDYLGDAWYLEPMFKHSGGL 180
QY 181 ELVGPCKVYIKANWQAPAINFGVDAVHGWTHASLSGESITSSLAGNALPPEGAGL 240
DB 181 ELVGPCKVYIKANWQAPAINFGVDAVHGWTHASLSGESITSSLAGNALPPEGAGL 240
QY 241 QMTSKYSGMGVLMDGYSGVSDALVPELMAFQGAQORLNKEIGDVARVYSHLACTV 300
DB 241 QMTSKYSGMGVLMDGYSGVSDALVPELMAFQGAQORLNKEIGDVARVYSHLACTV 300
QY 301 FPNNSMTCGQVFKVNPVINDTETWTVYAVEKDPELDELADSVQVGTGPAQWMS 360
DB 301 FPNNSMTCGQVFKVNPVINDTETWTVYAVEKDPELDELADSVQVGTGPAQWMS 360
QY 361 DDNNMETASQNGKYSQRELSLNLGFGEDVYGDVYFGVNSAIGETSYGTFRAY 420
DB 361 DDNNMETASQNGKYSQRELSLNLGFGEDVYGDVYFGVNSAIGETSYGTFRAY 420
QY 421 QAVYSSSWALPEFASSTWHTLNTKTDR 449
DB 421 QAVYSSSWALPEFASSTWHTLNTKTDR 449

RESULT 9
US-09-843-250-26
Sequence 26, Application US/09843250
Publication No. US20030022335A1
GENERAL INFORMATION:
APPLICANT: Paralel, R.
APPLICANT: Gibson, D.
APPLICANT: Resnick, S.
TITLE OF INVENTION: Naphthalene dioxygenase
FILE REFERENCE: 875.006182
CURRENT APPLICATION NUMBER: US/09/843.250
CURRENT FILING DATE: 2001-04-26
PRIOR APPLICATION NUMBER: PCT/US99/25079
PRIOR FILING DATE: 1998-10-26
PRIOR APPLICATION NUMBER: US 60/105,575
PRIOR FILING DATE: 1998-10-26
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSeq for Windows Version 4.0
SEQUENCE 26
LENGTH: 449
TYPE: PRT
ORGANISM: Pseudomonas sp.
OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:26.
US-09-843-250-26

Query Match      99.6%; Score 2401; DB 11; Length 449;
Beat Local Similarity 99.8%; Pred. No. 3.5e-226;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```

QY 1 MYNNKLVISBESGLSGQLHDSBELFOHELTIPANNMLFTHDSLPADQVYVTAAG 60
 DB 1 MYNNKLVISBESGLSGQLHDSBELFOHELTIPANNMLFTHDSLPADQVYVTAAG 60
 QY 61 IDIVISVRQNDGSTAFANVCHRGKTLVSVEAGNAGKFCVSTHGWGSGNGLSVPE 120
 DB 61 IDIVISVRQNDGSTAFANVCHRGKTLVSVEAGNAGKFCVSTHGWGSGNGLSVPE 120
 QY 121 KOLYGSINKKCLGLKAEVARSVESEFGFTYGCDOPEAPMDYLDGAANYLEPWFBSGGL 180
 DB 121 KOLYGSINKKCLGLKAEVARSVESEFGFTYGCDOPEAPMDYLDGAANYLEPWFBSGGL 180
 QY 181 ELVUPGPKVYTKANKKAPAEFVGDAYHWGTHWTHASSLGSSEIFSSLAGNALPPGAGL 240
 DB 181 ELVUPGPKVYTKANKKAPAEFVGDAYHWGTHWTHASSLGSSEIFSSLAGNALPPGAGL 240
 QY 241 QMTSKYSGMGVLAQVSGHSADUVEPMAFGAQERLKEIGDVEARYESHLNACTV 300
 DB 241 QMTSKYSGMGVLAQVSGHSADUVEPMAFGAQERLKEIGDVEARYESHLNACTV 300
 QY 301 FNNSMILTSYGKFWNPIDANTYEWYALVEOMFEDJELASUQVTPGAPGWS 360
 DB 301 FNNSMILTSYGKFWNPIDANTYEWYALVEOMFEDJELASUQVTPGAPGWS 360
 QY 361 DDNNMETASQKTKYQSDUSLSNLGFDYVGDYATVGVGSKALGISTYGFYAY 420
 DB 361 DDNNMETASQKTKYQSDUSLSNLGFDYVGDYATVGVGSKALGISTYGFYAY 420
 QY 421 QAVYSSNNWFERRASSTWHTLTKTDR 449
 DB 421 QAVYSSNNWFERRASSTWHTLTKTDR 449

RESULT 9 250-59
 / Sequence 59, Application US/09843250
 / Publication NO. US2003002235A1
 / GENERAL INFORMATION:
 / APPLICANT: Parales, B.
 / APPLICANT: Remick, S.
 / APPLICANT: Lee, K.
 / TITLE OF INVENTION: No. US2003002235A1el naphthalene dioxygenase and methods for the
 / PRIOR FILING DATE: 1998-10-26
 / CURRENT FILING DATE: 2001-04-26
 / PRIOR APPLICATION NUMBER: PCT/US99/25079
 / PRIOR FILING DATE: 1999-10-26 60/105,575
 / PRIOR FILING DATE: 1998-10-26
 / NUMBER OF SEQ ID NOS: 65
 / SOFTWARE: FastSeq for Windows Version 4.0
 / SEQ ID NO 1
 / LENGTH: 449
 / TYPE: PRT
 / ORGANISM: Artificial Sequence
 / OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:57.
 / US-09-843-250-59

Query Match 99.6%; Score 2401; DB 11; Length 449;
 Best Local Similarity 99.8%; P-Val: 4.3e-226;
 Matches 449; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
 QY 1 MYNNKLVISBESGLSGQLHDSBELFOHELTIPANNMLFTHDSLPADQVYVTAAG 60
 DB 1 MYNNKLVISBESGLSGQLHDSBELFOHELTIPANNMLFTHDSLPADQVYVTAAG 60
 QY 61 IDIVISVRQNDGSTAFANVCHRGKTLVSVEAGNAGKFCVSTHGWGSGNGLSVPE 120
 DB 61 IDIVISVRQNDGSTAFANVCHRGKTLVSVEAGNAGKFCVSTHGWGSGNGLSVPE 120

QY 121 KOLYGSINKKCLGLKAEVARSVESEFGFTYGCDOPEAPMDYLDGAANYLEPWFBSGGL 180
 DB 121 KOLYGSINKKCLGLKAEVARSVESEFGFTYGCDOPEAPMDYLDGAANYLEPWFBSGGL 180
 QY 181 ELVUPGPKVYTKANKKAPAEFVGDAYHWGTHWTHASSLGSSEIFSSLAGNALPPGAGL 240
 DB 181 ELVUPGPKVYTKANKKAPAEFVGDAYHWGTHWTHASSLGSSEIFSSLAGNALPPGAGL 240
 QY 241 QMTSKYSGMGVLAQVSGHSADUVEPMAFGAQERLKEIGDVEARYESHLNACTV 300
 DB 241 QMTSKYSGMGVLAQVSGHSADUVEPMAFGAQERLKEIGDVEARYESHLNACTV 300
 QY 301 FNNSMILTSYGKFWNPIDANTYEWYALVEOMFEDJELASUQVTPGAPGWS 360
 DB 301 FNNSMILTSYGKFWNPIDANTYEWYALVEOMFEDJELASUQVTPGAPGWS 360
 QY 361 DDNNMETASQKTKYQSDUSLSNLGFDYVGDYATVGVGSKALGISTYGFYAY 420
 DB 361 DDNNMETASQKTKYQSDUSLSNLGFDYVGDYATVGVGSKALGISTYGFYAY 420
 QY 421 QAVYSSNNWFERRASSTWHTLTKTDR 449
 DB 421 QAVYSSNNWFERRASSTWHTLTKTDR 449

Query Match 99.6%; Score 2400; DB 11; Length 449;
 Best Local Similarity 99.8%; P-Val: 4.3e-226;
 Matches 449; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MYNNKLVISBESGLSGQLHDSBELFOHELTIPANNMLFTHDSLPADQVYVTAAG 60
 DB 1 MYNNKLVISBESGLSGQLHDSBELFOHELTIPANNMLFTHDSLPADQVYVTAAG 60
 QY 61 IDIVISVRQNDGSTAFANVCHRGKTLVSVEAGNAGKFCVSTHGWGSGNGLSVPE 120
 DB 61 IDIVISVRQNDGSTAFANVCHRGKTLVSVEAGNAGKFCVSTHGWGSGNGLSVPE 120
 QY 121 KOLYGSINKKCLGLKAEVARSVESEFGFTYGCDOPEAPMDYLDGAANYLEPWFBSGGL 180
 DB 121 KOLYGSINKKCLGLKAEVARSVESEFGFTYGCDOPEAPMDYLDGAANYLEPWFBSGGL 180
 QY 181 ELVUPGPKVYTKANKKAPAEFVGDAYHWGTHWTHASSLGSSEIFSSLAGNALPPGAGL 240
 DB 181 ELVUPGPKVYTKANKKAPAEFVGDAYHWGTHWTHASSLGSSEIFSSLAGNALPPGAGL 240
 QY 241 QMTSKYSGMGVLAQVSGHSADUVEPMAFGAQERLKEIGDVEARYESHLNACTV 300

DB 241 QMTSKYSGMGVLMQGTGSHADAVPELMAFGQAGKRLNEIGDVARIYSHLNCTV 300
 QY 301 FPNNSMTCSGVFWKMFIDANTTWTVAIVKQWDEKRLASVQVQDAGFMS 360
 DB 301 FPNNSMTCSGVFWKMFIDANTTWTVAIVKQWDEKRLASVQVQDAGFMS 360
 DB 361 DDNNMTASQNGKCYQSDLSNGLSGEDVGDVATPVGVKSAIGTSYGTFRAY 420
 DB 361 DDNNMTASQNGKCYQSDLSNGLSGEDVGDVATPVGVKSAIGTSYGTFRAY 420
 QY 421 QNVSSSWAFBFASSHTHTLNTXTR 449
 DB 421 QNVSSSWAFBFASSHTHTLNTXTR 449

RESULT 11
 US-09-843-250-36
 ; Sequence 36, Application US/09843250
 ; Publication No. US20030022335A1
 ; INVENTOR: Lee, K.
 ; APPLICANT: Paralel, R.
 ; APPLICANT: Remick, S.
 ; TITLE OF INVENTION: US 20030022335A1 naphthalene dioxygenase and methods for the
 ; CURRENT APPLICATION NUMBER: US/09/843,250
 ; PRIORITY FILING DATE: 2001-04-26
 ; PRIOR APPLICATION NUMBER: PCT/US99/25079
 ; PRIOR FILING DATE: 1999-10-26
 ; PRIOR FILING DATE: 1998-10-26
 ; NUMBER OF SEQ ID NOS: 65
 ; SOFTWARE: FASTSEQ for Windows Version 4.0
 ; SEQ ID NO 36: 449
 ; LENGTH: 449
 ; TYPE: PRT
 ; FEATURES: Artificial Sequence
 ; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:31.
 US-09-843-250-36

Query Match 99.4%; Score 2400; DB 11; Length 449;
 Best Local Similarity 99.4%; Pred. No. 1,38-221; Indels 0;
 Matches 448; Conservative 0; Mismatches 0;
 DB 1 MYNNKLIVSSGSLGQHLINQDELFQHELTATFNNMLFLTHOSLIPAGDYVYANG 60
 DB 1 MYNNKLIVSSGSLGQHLINQDELFQHELTATFNNMLFLTHOSLIPAGDYVYANG 60
 QY 61 IDVIVSRQDQSEITAFIIVCHRGKTVSVAGNAGFVCSHGFGSNGELQSVFPE 120
 DB 61 IDVIVSRQDQSEITAFIIVCHRGKTVSVAGNAGFVCSHGFGSNGELQSVFPE 120
 QY 121 KOLYGSINKKLGLKEVARSFPGTYGCPDQAPPLMDYLDAAVLEPFWHSGSL 180
 DB 121 KOLYGSINKKLGLKEVARSFPGTYGCPDQAPPLMDYLDAAVLEPFWHSGSL 180
 QY 181 ELVPGPKVITAKNPALENPALENPALENPALENPALENPALENPALENPALEN 240
 DB 181 ELVPGPKVITAKNPALENPALENPALENPALENPALENPALENPALENPALEN 240
 QY 241 QMTSKYSGMGVLMQGTGSHADAVPELMAFGQAGKRLNEIGDVARIYSHLNCTV 300
 DB 241 QMTSKYSGMGVLMQGTGSHADAVPELMAFGQAGKRLNEIGDVARIYSHLNCTV 300
 QY 301 FPNNSMTCSGVFWKMFIDANTTWTVAIVKQWDEKRLASVQVQDAGFMS 360
 DB 301 FPNNSMTCSGVFWKMFIDANTTWTVAIVKQWDEKRLASVQVQDAGFMS 360
 QY 361 DDNNMTASQNGKCYQSDLSNGLSGEDVGDVATPVGVKSAIGTSYGTFRAY 420
 DB 361 DDNNMTASQNGKCYQSDLSNGLSGEDVGDVATPVGVKSAIGTSYGTFRAY 420
 QY 421 QNVSSSWAFBFASSHTHTLNTXTR 449
 DB 421 QNVSSSWAFBFASSHTHTLNTXTR 449

DB 361 DDNNMTASQNGKCYQSDLSNGLSGEDVGDVATPVGVKSAIGTSYGTFRAY 420
 QY 421 QNVSSSWAFBFASSHTHTLNTXTR 449
 DB 421 QNVSSSWAFBFASSHTHTLNTXTR 449

RESULT 12
 US-09-843-250-16
 ; Sequence 16, Application US/09843250
 ; Publication No. US20030022335A1
 ; INVENTOR: Lee, K.
 ; APPLICANT: Paralel, R.
 ; APPLICANT: Remick, S.
 ; TITLE OF INVENTION: US 20030022335A1 naphthalene dioxygenase and methods for the
 ; CURRENT APPLICATION NUMBER: US/09/843,250
 ; PRIORITY FILING DATE: 2001-04-26
 ; PRIOR APPLICATION NUMBER: PCT/US99/25079
 ; PRIOR FILING DATE: 1999-10-26
 ; PRIOR FILING DATE: 1998-10-26
 ; NUMBER OF SEQ ID NOS: 65
 ; SOFTWARE: FASTSEQ for Windows Version 4.0
 ; SEQ ID NO 16: 449
 ; LENGTH: 449
 ; TYPE: PRT
 ; FEATURES: Artificial Sequence
 ; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:5.
 US-09-843-250-16

Query Match 99.4%; Score 2396; DB 11; Length 449;
 Best Local Similarity 99.6%; Pred. No. 1,18-225; Indels 0; Gaps 0;
 Matches 447; Conservative 0; Mismatches 2;
 QY 1 MYNNKLIVSSGSLGQHLINQDELFQHELTATFNNMLFLTHOSLIPAGDYVYANG 60
 DB 1 MYNNKLIVSSGSLGQHLINQDELFQHELTATFNNMLFLTHOSLIPAGDYVYANG 60
 QY 61 IDVIVSRQDQSEITAFIIVCHRGKTVSVAGNAGFVCSHGFGSNGELQSVFPE 120
 DB 61 IDVIVSRQDQSEITAFIIVCHRGKTVSVAGNAGFVCSHGFGSNGELQSVFPE 120
 QY 121 KOLYGSINKKLGLKEVARSFPGTYGCPDQAPPLMDYLDAAVLEPFWHSGSL 180
 DB 121 KOLYGSINKKLGLKEVARSFPGTYGCPDQAPPLMDYLDAAVLEPFWHSGSL 180
 QY 181 ELVPGPKVITAKNPALENPALENPALENPALENPALENPALENPALENPALEN 240
 DB 181 ELVPGPKVITAKNPALENPALENPALENPALENPALENPALENPALENPALEN 240
 QY 241 QMTSKYSGMGVLMQGTGSHADAVPELMAFGQAGKRLNEIGDVARIYSHLNCTV 300
 DB 241 QMTSKYSGMGVLMQGTGSHADAVPELMAFGQAGKRLNEIGDVARIYSHLNCTV 300
 QY 301 FPNNSMTCSGVFWKMFIDANTTWTVAIVKQWDEKRLASVQVQDAGFMS 360
 DB 301 FPNNSMTCSGVFWKMFIDANTTWTVAIVKQWDEKRLASVQVQDAGFMS 360
 QY 361 DDNNMTASQNGKCYQSDLSNGLSGEDVGDVATPVGVKSAIGTSYGTFRAY 420
 DB 361 DDNNMTASQNGKCYQSDLSNGLSGEDVGDVATPVGVKSAIGTSYGTFRAY 420
 QY 421 QNVSSSWAFBFASSHTHTLNTXTR 449
 DB 421 QNVSSSWAFBFASSHTHTLNTXTR 449

RESULT 13
 US-09-843-250-17

```

; Sequence 17, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralee, R.
; APPLICANT: Gibson, D.
; APPLICANT: Resnick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 18
; LENGTH: 449
; TYPE: PPT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.6.
US-09-843-250-17

```

```

Query Match      95.2%; Score 2391; DB 11; Length 449;
Best Local Similarity 95.3%; Pred. No. 1.6e-225;
Matches 446; Conservative 41; Mismatches 2; Indels 0; Gaps 0;

```

```

QY 1 MYNNKILVSESGSLSGHLLHDEELFQHELKTFIPANNMLFTIHDSLIPAPQDYVYVANG 60
DB 1 MYNNKILVSESGSLSGHLLHDEELFQHELKTFIPANNMLFTIHDSLIPAPQDYVYVANG 60
QY 61 IDIVTVGRQDGSIFAFLNCHRGKNTLVSVEAGNAKGFVCSHWGFGSGNGLSQVPEE 120
DB 61 IDIVTVGRQDGSIFAFLNCHRGKNTLVSVEAGNAKGFVCSHWGFGSGNGLSQVPEE 120
QY 121 KOLYGSLSMKKCLGLKEAVRVSFPGFTYCFQDQAPPLADYLDGAATVLEMPHSGCL 180
DB 121 KOLYGSLSMKKCLGLKEAVRVSFPGFTYCFQDQAPPLADYLDGAATVLEMPHSGCL 180
QY 181 ELVGPQKVTIVKANKPAENFVDYDAHYVHTHASSLRGSESISSLAGNAALPPGAGL 240
DB 181 ELVGPQKVTIVKANKPAENFVDYDAHYVHTHASSLRGSESISSLAGNAALPPGAGL 240
QY 241 QMTSKYSGMGLVMDGSGVHADVPELMAFGAKGKELKEGLADVYVSHLACTV 300
DB 241 QMTSKYSGMGLVMDGSGVHADVPELMAFGAKGKELKEGLADVYVSHLACTV 300
QY 301 FPNSSMLTCGTVKFWPVPIDANTHTVYVAVKEDPELKEALASVORTGDFAGPES 360
DB 301 FPNSSMLTCGTVKFWPVPIDANTHTVYVAVKEDPELKEALASVORTGDFAGPES 360
QY 361 DDNDMMETASQNGKTKQSGEDSLNLSGFRDYGDAVPTVVGKSLGISTGTFRAY 420
DB 361 DDNDMMETASQNGKTKQSGEDSLNLSGFRDYGDAVPTVVGKSLGISTGTFRAY 420
QY 421 QAHVSSSWAFEPHASSSTWHTELTCTDR 449
DB 421 QAHVSSSWAFEPHASSSTWHTELTCTDR 449

```

```

RESULT 14
US-09-843-250-18
; Sequence 18, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralee, R.
; APPLICANT: Gibson, D.
; APPLICANT: Resnick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.006252
US-09-843-250-19
; Sequence 19, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralee, R.
; APPLICANT: Gibson, D.
; APPLICANT: Resnick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 19

```

```

; CURRENT APPLICATION NUMBER US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 18
; LENGTH: 449
; TYPE: PPT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.7.
US-09-843-250-16

```

```

Query Match      97.2%; Score 2343; DB 11; Length 449;
Best Local Similarity 96.7%; Pred. No. 1.6e-220;
Matches 434; Conservative 10; Mismatches 5; Indels 0; Gaps 0;

```

```

QY 1 MYNNKILVSESGSLSGHLLHDEELFQHELKTFIPANNMLFTIHDSLIPAPQDYVYVANG 60
DB 1 MYNNKILVSESGSLSGHLLHDEELFQHELKTFIPANNMLFTIHDSLIPAPQDYVYVANG 60
QY 61 IDIVTVGRQDGSIFAFLNCHRGKNTLVSVEAGNAKGFVCSHWGFGSGNGLSQVPEE 120
DB 61 IDIVTVGRQDGSIFAFLNCHRGKNTLVSVEAGNAKGFVCSHWGFGSGNGLSQVPEE 120
QY 121 KOLYGSLSMKKCLGLKEAVRVSFPGFTYCFQDQAPPLADYLDGAATVLEMPHSGCL 180
DB 121 KOLYGSLSMKKCLGLKEAVRVSFPGFTYCFQDQAPPLADYLDGAATVLEMPHSGCL 180
QY 181 ELVGPQKVTIVKANKPAENFVDYDAHYVHTHASSLRGSESISSLAGNAALPPGAGL 240
DB 181 ELVGPQKVTIVKANKPAENFVDYDAHYVHTHASSLRGSESISSLAGNAALPPGAGL 240
QY 241 QMTSKYSGMGLVMDGSGVHADVPELMAFGAKGKELKEGLADVYVSHLACTV 300
DB 241 QMTSKYSGMGLVMDGSGVHADVPELMAFGAKGKELKEGLADVYVSHLACTV 300
QY 301 FPNSSMLTCGTVKFWPVPIDANTHTVYVAVKEDPELKEALASVORTGDFAGPES 360
DB 301 FPNSSMLTCGTVKFWPVPIDANTHTVYVAVKEDPELKEALASVORTGDFAGPES 360
QY 361 DDNDMMETASQNGKTKQSGEDSLNLSGFRDYGDAVPTVVGKSLGISTGTFRAY 420
DB 361 DDNDMMETASQNGKTKQSGEDSLNLSGFRDYGDAVPTVVGKSLGISTGTFRAY 420
QY 421 QAHVSSSWAFEPHASSSTWHTELTCTDR 449
DB 421 QAHVSSSWAFEPHASSSTWHTELTCTDR 449

```

```

RESULT 15
US-09-843-250-19
; Sequence 19, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralee, R.
; APPLICANT: Gibson, D.
; APPLICANT: Resnick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 19

```

```

; LENGTH: 449
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:8.
; LOCATION: (35)...(35)
; OTHER INFORMATION: Xaa = any amino acid.
; US-09-843-250-19

Query Match          96.1%; Score 2315; DB 11; Length 449;
Best Local Similarity 95.5%; Pred. No. 9,1e-218;
Matches 429; Conserved 12; Mismatches 8; Indels 0; Gaps 0;

QY 1 MYTNNKLVSSGLSOKHLHGDSHLPQHEKLTIPADNMLFLTHDSLIPACDYVTAKG 60
DB 1 MYTNNKLVSSGLTQKHLHGDSHLPQHEKLTIPADNMLFLTHDSLIPACDYVTAKG 60

QY 61 IDNIVSRQKSTIRAFLLNVCBHGTLVSVEAGNAGTVCSTHMGSGSGLQSVPE 120
DB 1 IDNIVSRQKSTIRAFLLNVCBHGTLVSVEAGNAGTVCSTHMGSGSGLQSVPE 120

QY 121 KLVGSEHAKKCGIQLKXVAVSFGTVCCEPQARPLADYLCDAANYLTPMFKSGGL 180
DB 121 KELYGSEHAKKCGIQLKXVAVSFGTVCCEPQARPLADYLCDAANYLTPMFKSGGL 180

QY 181 ELVGPQKVTYKANKKAPAKNVCDAVNGCTHASSISGSESISSGLAGNALPPKGGH 240
DB 181 ELVGPQKVTYKANKKAPAKNVCDAVNGCTHASSISGSESISSGLAGNALPPKGGH 240

QY 241 QMTSYGSGMTLVKVCCHGKRNKRELMKPEGLKQELKQELKQELKQELKQELKQEL 300
DB 241 QMTSYGSGMTLVKVCCHGKRNKRELMKPEGLKQELKQELKQELKQELKQELKQEL 300

QY 301 PINKSMVTCGVTNANPTDANTETWYVYVHEMPELWRLADSVPCGSGAGFWES 360
DB 301 PINKSMVTCGVTNANPTDANTETWYVYVHEMPELWRLADSVPCGSGAGFWES 360

QY 361 DDDNMATASQNTVQSGSDSLGMLPQSDYVDVYFVGVGSAIGHSYKSTRAY 420
DB 361 DDDNMATASQNTVQSGSDSLGMLPQSDYVDVYFVGVGSAIGHSYKSTRAY 420

QY 421 QNVVSSNVAIFERLSTVTELTNKTDR 449
DB 421 QNVVSSNVAIFERLSTVTELTNKTDR 449

```

Search completed: December 9, 2003, 16:09:32
 Job time: 23.1429 sec

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 9, 2003, 15:44:13, Search time 11.8571 Seconds
1602.205 Million cell updates/sec

Title: US-09-843-250-33

Accession score: 1474

Sequence: 1 WYNNKLIVSGSLGQKLL.....AFEEASSTWHTLWYDTR 449

Scoring table: BLOSUM62 Gapop 10.0, Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717
Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Linking first 45 summaries

Database: 1: Issued Patents RA.*

2: /cgm2_6/prodata/1/aa/SA COMB pep.*

3: /cgm2_6/prodata/1/aa/SA COMB pep.*

4: /cgm2_6/prodata/1/aa/GB COMB pep.*

5: /cgm2_6/prodata/1/aa/ACTUS COMB pep.*

6: /cgm2_6/prodata/1/aa/backfiles pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No	Score	Query Match	Length	ID	Description
1	407.5	16.9	463	4	US-09-252-991A-1367
2	407.5	16.9	496	4	US-09-328-352-6452
3	382.5	15.0	466	4	US-09-252-991A-1367
4	382.5	15.0	466	4	US-09-328-352-6452
5	360.5	15.0	471	4	US-09-328-352-7581
6	344.5	14.3	425	4	US-09-252-991A-15088
7	278.5	11.1	419	4	US-09-252-991A-17164
8	278.5	11.1	419	4	US-09-252-991A-17164
9	237.5	9.9	529	4	US-09-252-991A-15627
10	224	9.3	446	4	US-09-004-3938-4
11	223	9.3	439	4	US-09-004-3938-2
12	194	7.2	35	3	US-08-810-009-21
13	174	7.2	35	3	US-08-810-009-21
14	168	7.0	35	3	US-08-810-009-21
15	143.5	6.0	629	4	US-09-252-991A-27100
16	138.5	5.3	392	4	US-09-328-352-6765
17	118.5	4.7	379	3	US-09-028-934-3
18	113.5	4.7	379	3	US-09-028-934-3
19	110	4.6	35	3	US-08-810-009-12
20	109	4.6	35	3	US-08-810-009-12
21	108	4.5	354	4	US-09-328-352-4356
22	108	4.5	354	4	US-09-328-352-4356
23	108	4.5	35	3	US-08-810-009-13
24	108	4.5	622	4	US-09-311-6268-4
25	106.5	4.4	432	3	US-08-809-326A-16
26	106.5	4.4	432	3	US-08-809-326A-16
27	106.5	4.4	432	4	US-09-689-916A-16

28 106.5 4.4 432 4 US-09-689-916A-16
29 106.5 4.4 432 4 US-09-689-916A-16
30 106.5 4.4 432 4 US-09-689-916A-16
31 106.5 4.4 432 4 US-09-689-916A-16
32 106.5 4.4 432 4 US-09-689-916A-16
33 106 4.4 35 3 US-08-810-009-9
34 104 4.3 35 3 US-08-810-009-9
35 103 4.3 35 3 US-08-810-009-11
36 103 4.3 35 3 US-08-810-009-11
37 102 4.2 35 3 US-08-810-009-40
38 101 4.2 17 3 US-08-810-009-44
39 101 4.2 17 3 US-08-810-009-45
40 101 4.2 1132 4 US-09-158-452A-466
41 100 4.2 35 3 US-08-810-009-161
42 100 4.2 35 3 US-08-810-009-17
43 99.5 4.1 256 4 US-09-325-931A-57
44 98 4.1 5588 3 US-09-036-987A-6
45 98 4.1 5588 3 US-09-370-700-6

ALIGNMENTS

RESULT 1
US-09-252-991A-1367
Sequence 31367, Application US/09252991A
Title: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
CURRENT APPLICATION NUMBER: US/09/252.991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 31367
TYPE: PRT
ORGANISM: Pseudomonas aeruginosa

US-09-252-991A-1367

Query Match 16.9%; Score 407.5; DB #; Length 463;
Best Local Similarity 29.0%; Pred. No. 26-30;
Matches 101; Conservative 69; Mismatches 149; Indels 51; Gaps 17;

QY 23 DEEFORHETATFANWLEFTHUSITRATQVYFMKDKIVSVKSGHRIANVCR 82
DB 38 DRPLFELMELHFGSNVYLAHSGVGVNDVLTQIGRSVILAROGQLANACS 97
QY 83 HGVKIVGVRNAGKGVTFVSGVSGVGLGY--PRHGVSGKMKGLG--LKE 137
DB 98 HGVKIVGVRNAGKGVTFVSGVSGVGLGY--PRHGVSGKMKGLG--LKE 137
QY 138 YAVVEFHTGYVQDFQDEAPPLADYADANVYEMPHRS--GELGVPGKQVYKAWK 196
DB 155 VAVFETVGTGFTSLNDFVPELAHLGSGKIDIMVQSPLEGLVSGSSVYGEWK 214
QY 197 APANFVQDAHYNG--WTHASS-----LRSGESITSSLAGNAALFPGGLQ 241
DB 215 LTMN--GLDQGVSVVHTATVQQRQDADPLA-----WMAQAN--GGQTY 265
QY 242 MTYKGVGVGVMDVGVGVSHVADLVPE--LMAFGAGKRIKNEIGVQVAT--IVRSHCT 299
DB 266 ---SFHGLKMSKAWN-----FEDRPA--ERPAELAQFGARDAMWLNRSK 313
QY 300 VFFNNSM--TCSGVFKVPMIDANTYVWYVAVEDKMDHEDKELADSVQFAGPAGW 358
DB 314 LTFVNTVLMQGFQSRITAPSVVDVETITTYICIAFGSSSEANARIRQYEDFNVSGMA 373

QY 359 BSDDNNMTASQCKKQY 377
 Db 374 TDDLBBSFCQCG--TQ 389

RESULT 2
 US-09-328-352-6152
 ; Sequence 6452, Application US/09328352
 ; Score 407.5; DB 4; Length 496;
 ; Best Local Similarity 31.3%; Pred. No. 2.4e-30;
 ; Matches 105; Conservative 59; Mismatches 146; Indels 25; Gaps 13;
 ; GENERAL INFORMATION:
 ; APPLICANT: Gary L. Breton et al.
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
 ; FILE REFERENCE: GTC99-039A11 FOR DIAGNOSTICS AND THERAPEUTICS
 ; CURRENT APPLICATION NUMBER: US/09/328,352
 ; CURRENT FILING DATE: 1999-06-04
 ; NUMBER OF SEQ ID NOS: 8252
 ; SEQ ID NO 496
 ; LENGTH: 496
 ; TYPE: PRT
 ; ORGANISM: Acinetobacter baumannii
 US-09-328-352-6152

Query Match
 ; Score 407.5; DB 4; Length 496;
 ; Best Local Similarity 31.3%; Pred. No. 2.4e-30;
 ; Matches 105; Conservative 59; Mismatches 146; Indels 25; Gaps 13;

QY 23 DEELFOHELKTIFARNKLEFTHSLTPAQQYVTAAGGIDIVYSRQDGSSTRAFLN 79
 Db 73 DEALFDLEKTYIFGNNYLAHESQIPNNIDYTYTGGPFIITANNGENIMNAGS 132

QY 83 HRCGLTASVAGNAKGFCTVHGFGSGNGELSTPEKDL--KSELNKK--CLGLAEVAR 140
 Db 133 HRCGLQCTYKRGNNATYCTFEGNTFNNSGKLLKCTPDAQCTGCTFAGQSHDLKVAR 192

QY 141 VESFGTYGCPDAPADYDGDAAWLEMPKRS--GGLNVPKPKVYKANWAPA 199
 Db 193 FRSYAGFLGSLNPDVPSLEELGETTKIDIMLVQSHGLVGLKSGSTYTBQNKGLTA 252

QY 200 ENYGDVAVNG--ATYHSLGSGSTIFSSLAGNAALPPEA--GLQWTSYG--SGMYVL 253
 Db 253 EN--GADYHVAIVANNTATYQGRKE--TQADNTDANGSGKWKQGGSTYFENGLG 309

QY 254 WQYGVGHSGADIVPELAFAGQAKQERLAKGVAAK--LYSHSLCTVFPNNSMLCTSG 311
 Db 310 WYQANVDEPRNF-----KADYETKYGKNSKNIIESS--NCLYINLYLADQF 360

QY 312 -VFWNPIDANTITWTAIVK--DMPELAKRU 344
 Db 361 SQIRVRLPSVNEITVCTAPKGNADYANRMI 395

RESULT 3
 US-09-328-352-7248
 ; Sequence 7248, Application US/09328352
 ; Patent No. 656258
 ; APPLICANT: Gary L. Breton et al.
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
 ; FILE REFERENCE: GTC99-039A
 ; CURRENT APPLICATION NUMBER: US/09/328,352
 ; CURRENT FILING DATE: 1999-06-04
 ; NUMBER OF SEQ ID NOS: 8252
 ; SEQ ID NO 7248
 ; LENGTH: 445
 ; TYPE: PRT
 ; ORGANISM: Acinetobacter baumannii
 US-09-328-352-7248

Query Match
 ; Score 389; DB 4; Length 445;
 ; Best Local Similarity 36.1%; Pred. No. 4.9e-28;
 ; Matches 124; Conservative 66; Mismatches 147; Indels 88; Gaps 21;

QY 20 HRCRELFOHELKTIFARNKLEFTHSLTPAQQYVTAAGGIDIVYSRQDGSSTRAFLN 79
 Db 47 LYDRIERFOHEMEKIFSTWVWVAHSELPFGSYKTINIGQVTVVVRDKKQVHLN 106

QY 80 VCHGKONTVSTVELGNAKGFCTVHGFGSGNGELSTPEKDLQBSLKNKKCLGLAEVA 139
 Db 107 RCHRAATVCEHKGAGTSTVCTVHGASTALDQSLAGV--SFSTGCDLQNSLPSVL-- 164

QY 140 VYSGFMTYGCPODAPADYDGDAAWLEMPKRS--GGLNVPKPKVYKANWAPA 199
 Db 165 KVEYGNMIFASFGEDQLEELTPEAKWLDLPMQCCNATYIKVLASRRFPD----- 219

QY 193 ANWAKAPANTVDGAVHGMTHASLSRS---GHSITFSSLAGNAALPPEAGLQWTSYGS 248
 Db 220 -NKKIQLN--TLDNHFPLVHKSELSVDKTEIFER-----FEN 257

QY 249 GMYGVGHSGADIVPELAFAGQAKQER--LAKSEIGVR-----ARIVR-- 293
 Db 258 QYGVFELGHSUSWVLELQDEELAKETIQERFDLAQADGDEHELEVRVRA 317

QY 294 ---SHLNTVFPNNSMLCTSG--GVFWNPIDANTITWTAIVKQ--MPEDLKELA 345
 Db 318 VQSGTRNLNFPN---TACSNAFVPLVQLEISAVETI--HBSVTMGQGTQANQVRUEH 373

QY 346 DSVQRTAGTAGHESDDNNMTASQCKKQYQSDLSLNLAFGEDVDGAVYGVWG-- 404
 Db 374 EHFQ--GFFPGTGPDSUSEMERV--CHGAN--AGNDLWLMRGL-----PGEVKT 418

QY 405 ---KSAI--GTSYGVGYATQ 421
 Db 419 EDGLGSDVSAETGQRAAYQOKK 440

RESULT 4
 US-09-252-991A-31385
 ; Sequence 31385, Application US/09222991A
 ; Patent No. 656258
 ; APPLICANT: Marc J. Rubenfield et al.
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
 ; FILE REFERENCE: 107146.136
 ; FILE REFERENCES: 107146.136
 ; CURRENT APPLICATION NUMBER: US/09/252,991A
 ; CURRENT FILING DATE: 1999-02-18
 ; PRIOR FILING DATE: 1998-02-18
 ; PRIOR FILING DATE: 1998-02-18
 ; PRIOR FILING DATE: 1998-07-27
 ; SEQ ID NO 31385
 ; LENGTH: 466
 ; TYPE: PRT
 ; ORGANISM: Pseudomonas aeruginosa
 US-09-252-991A-31385

Query Match
 ; Score 382.5; DB 4; Length 466;
 ; Best Local Similarity 27.1%; Pred. No. 4.9e-28;
 ; Matches 120; Conservative 77; Mismatches 182; Indels 63; Gaps 18;

QY 23 DEELFOHELKTIFARNKLETHSLTPAQDQYVTAAGGIDIVYSRQDGSSTRAFLN 82
 Db 39 EPELFDLEKTYIFGNNYLAHESLARPDPVTLAAGQQLVTFVTRGQGLADYDQ 98

QY 83 HRCGLTASVAGNAKGFCTVHGFGSGNGELSTPEKDL--KSELNKKCLGLAEVAR 140
 Db 99 HRCGLTVRQVNGQGTCTVFPNNTCTYKRGKRLVYKAGE---YFEDKATGSLK--AS 154

QY 141 VESFGTYGCPDAPADYDGDAAWLEMPKRS--GGLNVPKPKVYKANWAPA 197
 Db 155 IQSYRCPVPSVLDGADLVDLQADARVFLDVAQSGSELEVLKGTSTYTBQNKWL 214

QY 198 PANFVGDGAVHGMTHASLSRSGSTIFSSLAGNAALPPEAGLQNT---SKYSGMYVL-- 253

SEQ ID NO 17164
 Locus: 443
 TYPE: PRT
 ORGANISM: Pseudomonas aeruginosa
 US-09-252-991A-17164

Query Watch 12.1k; Score 291; DB 4; Length 449;

Best Local Similarity 26.4k; Pred. No. 2.6e-19;
 Matches 111; Conservative 53; Mismatches 160; Indels 96; Gaps 17;

QY 23 DELPEKELATETAPARMLLEHSLIPASCVYKAKGDELIVYVQRQDSIRAFPLNCR 82
 DB 60KLEFELQVDFHFKHLLMGHCHBIKPKGNFLQIQSGVPLVKGSGVGAHFNVC 119
 QY 83 HCKLIVSYKAGKQKQPCVYKMGKSGSGELGVSFPEKOLGSLKGLGKLVAVTG 142
 DB 120 HGSGLKSEKQKAKLVCPHONYTELDGRL--FAGTEGADPFMKYGLKPI-QVK 175
 QY 143 SFEGYVCGFQFAPARPLADGDAWKVLPMPHVSQGLGVLPQPCVQK-----NKK 196
 DB 176 TAGYVIFSAENPAIDPLATLBIHMYFDYEN-----AKAVQVTTREANWK 226
 QY 197 ANMAYVQVYKTHASIGRSIFPSLGNALMFPKGAQVGLSGKQVGMGVAVG 256
 DB 227 LVYEN-NRECHTQNGSHLLK-----TLLENDVDFRAG--QAFQVQVACTSMD- 276
 QY 257 YGWSHSLDVLVELMA-FG-----GAAQ--RLNKELGVRA 289
 DB 277 -----AKPIYANASFLGKLVIRVPELDQGVYKMGKQSSKLMKRLNPLGSLMI 330
 QY 290 RIYRSHLVNTPFNNMLTSG-----VFKVQVNTDANTTEVITVAVDMKPE----- 338
 DB 331 -----HLL-----FKNNECDVHLLVTVW-FISQSTLVITMLVINDVRSYDVVA 379
 QY 339 -----DLKRLADSVTGTGAGFWESDDNNMETASQKQKQSRSDLLSNLG 388
 DB 380 RLEWVWINDQRLAENKQSGNSDITQPGFKTEFGVIFLDWIS--ERMLNIG 437

RESULT 8

US-328-352-4700
 Sequence 4700; Application US/09328352
 Patent No. 6562958

GENERAL INFORMATION: Rhomboid et al.
 TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
 TITLE OF INVENTION: BACMANNII FOR DIAGNOSTICS AND THERAPEUTICS
 FILE REFERENCE: GTC99-03PA
 CURRENT FILING DATE: US/09/328,352
 NUMBER OF SEQ ID NOS: 66-64

SEQ ID NO 4700

LENGTH 375

ORGANISM: Acinetobacter baumannii

US-09-328-352-4700

Query Match 11.6k; Score 278.5; DB 4; Length 375;
 Best Local Similarity 21.4k; Pred. No. 4.2e-14;
 Matches 97; Conservative 57; Mismatches 111; Indels 85; Gaps 17;

QY 19 LINGDEELPQELKATETAPARMLLEHSLIPASCVYKAKGDELIVYVQRQDSIRAF 78
 DB 28 VYTSQVSEKVEKVFHSLIPASCVYKAGSELQADNYITNKVIGENYIKGSLV 87
 QY 79 NVYCRKQATVSVKAGKQKQPCVYKMGKSGSGELGVSFPEKOLGSLKGLGKLVAVTG 130
 DB 88 NVYCRKQATVSVKAGKQKQPCVYKMGKSGSGELGVSFPEKOLGSLKGLGKLVAVTG 140
 QY 131 KVLGKLVAVTGVSFPEKOLGSLKGLGKLVAVTGVSFPEKOLGSLKGLGKLVAVTG 150
 DB 141 SNVPLK----VETAGVTFVINDVNTCYEDQL---PGAPRQKQACVQKOLGKAAAFV 193

QY 191 IK-ANKMAYVQVYKTHASIGRSIFPSLGNALMFPKGAQVGLSGKQVGMGVAVG 248
 DB 194 TETANVAVDYNH-ETHCGFAN-----FGAUSVQVQKTVH 231
 QY 249 GNGVLPDOYSGSHADVLVELMAPFGAKGRLNKELGVYKATVYSHLACTVY--PNN 305
 DB 232 TTHQWQTVGSHG-----SEKSEKFLDPSVDFEHEFT-NECTVNNPQGSN 280
 QY 306 MATCSGVKVPNFIDANTTEVITVAV-----EKDM-----PDIKRLIADS 347
 DB 281 PNTVYEV-----PNDLTT-LQYDVIYFNELAQDILLVETVYVFERDL-NUVES 333
 QY 348 VQRTAGPAGP 357
 DB 334 VQGLSLSHGT 343

RESULT 9

US-09-252-991A-19627
 Sequence 19627; Application US/09252991A
 Patent No. 6551795

GENERAL INFORMATION: Rhomboid et al.
 APPLICATION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
 TITLE OF INVENTION: ABRUINGOSA FOR DIAGNOSTICS AND THERAPEUTICS
 TITLE OF INVENTION: ABRUINGOSA FOR DIAGNOSTICS AND THERAPEUTICS
 FILE REFERENCE: 107196.136

CURRENT APPLICATION NUMBER: US/09/252,991A

PRIOR APPLICATION NUMBER: US 60/074,788

PRIOR FILING DATE: 1998-02-18

PRIOR APPLICATION NUMBER: US 60/094,190

PRIOR FILING DATE: 1998-07-27

NUMBER OF SEQ ID NOS: 33142

SEQ ID NO 19627

LENGTH: 529

TYP: PRT

ORGANISM: Pseudomonas aeruginosa

US-09-252-991A-19627

Query Match 9.9k; Score 237.5; DB 4; Length 529;

Best Local Similarity 21.9k; Pred. No. 4.2e-14;

Nucleic 86; Conservative 54; Mismatches 139; Indels 67; Gaps 15;

QY 30 ELKTIPTAPALITLHSLIPADVYKMGIDVIVYVQRQDSIRAFVNCVHKGKTLV 89
 DB 173 EFKLITLHSLIPADVYKMGIDVIVYVQRQDSIRAFVNCVHKGKTLV 230
 QY 90 SYVAGMAGVYKTHASIGRSIFPSLGNALMFPKGAQVGLSGKQVGMGVAVG 146
 DB 231 QIETQCPVCTVTHASIGRSIFPSLGNALMFPKGAQVGLSGKQVGMGVAVG 286
 QY 149 YGCFQDEAPPLADYGAAMVLEPMFHSQGLS--LVGPGKVIKANKVPAENPVGDA 206
 DB 289 FVNLADPLEPEPDQ--FLTAVVSHLDTLITLTCVQ--RINKLAKEN--YGS 343
 QY 297 TVHWGTHASE-LSGSGIFSSLGNALP-----PFGAGLQMTSK-----YGS 248
 DB 344 NVVFPVHKTFLPMTAVPGVGLARVAVPSEVLRLQDEETPELSFPTFAPIQPYKS 403
 QY 249 GNGVLMKQYSGSHADVLVELMAPFGAKGRLNKELGVYKATVYSHLACTVYV 306
 DB 404 WFSQCDQYDGH-----ATVWEIYVFNVECS 431
 QY 432 VRGHEPLAQVDFVARGEDVHLMWMTARKDPIKPIQFALLSLIR 477

RESULT 10

US-09-004-3938-4
 Sequence 4; Application US/09004398B
 Patent No. 6310271

GENERAL INFORMATION:

APPLICANT: Hanson D., Andrew
 APPLICANT: Rathinasabapathi, Bala
 APPLICANT: Burnet, Michael
 TITLE OF INVENTION: Polynucleotides Encoding Choline Monooxygenase and
 TITLE OF INVENTION: Plants Transformed Therewith
 FILE REFERENCE: UP-162
 CURRENT APPLICATION NUMBER: US/09/004,393B
 PRIOR FILING DATE: 1998-01-08
 PRIOR APPLICATION NUMBER: US/09/004,393B
 PRIOR FILING DATE: 1997-01-08
 NUMBER OF SEQ ID NOS: 6
 SOFTWARE: Patent In Ver. 2.0
 LENGTH: 446
 TYPE: FRT
 ORGANISM: Beta vulgaris
 US-09-004-393B-4

Query Match
 Best Local Similarity 9.3%; Score 224; DB 4; Length 446;
 Matches 58; Conservative 38; Mismatches 97; Indels 20; Gaps 6;

QY 11 ESGLSGHLEHGHDELPHKHTKTPARKNLELTHSLIPAGQVYAKGLIVYERSON 70
 DB 99 EDALITPSTVTPFAPFHELEHLPYKGNVAGVSEQVKEKNGYFOTSLANVELVSDG 158
 QY 71 DQSTPVALNCEHCKTULSVKRNKNGVCSVSKHSGFSGHSLQVFFPKDGLKSLK 130
 DB 159 QDELHAFHNVCTERA-SILAGSGKSCFCVCPHGVWGLSLAKA--SKATENIDP 215
 QY 131 KGLGKLVAVSFVSEFTKCTQDAPPLMD---YLGR-----AKVLEWPFHSGSL 181
 DB 216 KGLGLAPL-KVAKSGPFLLSLDSLSLDANAVGTMGSLAEVKAHAFQNLHRESE 274
 QY 182 LVGPGKGVIVAKHAPNFVGNVYHGWTH 213
 DB 275 P-----PHECTKRVFCNYLDSSHYVPYH 299

RESULT 11
 US-09-004-393B-2
 Sequence 2, Application US/09004393B
 Patent No. 6310271
 APPLICANT: Hanson D., Andrew
 APPLICANT: Rathinasabapathi, Bala
 APPLICANT: Burnet, Michael
 TITLE OF INVENTION: Polynucleotides Encoding Choline Monooxygenase and
 TITLE OF INVENTION: Plants Transformed Therewith
 FILE REFERENCE: UP-162
 CURRENT APPLICATION NUMBER: US/09/004,393B
 PRIOR FILING DATE: 1998-01-08
 PRIOR APPLICATION NUMBER: US/09/004,393B
 PRIOR FILING DATE: 1997-01-08
 NUMBER OF SEQ ID NOS: 6
 SOFTWARE: Patent In Ver. 2.0
 LENGTH: 439
 TYPE: FRT
 ORGANISM: Spinacia oleracea
 US-09-004-393B-2

Query Match
 Best Local Similarity 9.3%; Score 223; DB 4; Length 439;
 Matches 58; Conservative 38; Mismatches 83; Indels 14; Gaps 7;

QY 27 FQELATTPANLKLTHSLIPAGQVYAKGLIVYERSONQSGSTAPVYAKHURK 86
 DB 108 YSHLEHLPYKGNVAGVLSQLEKNGYFOTSLANVELVSDGKGVHNVCTERA- 166
 QY 87 TLVSYVCHNAGVYHSGHNGHLEHLSQVFFEDLYESLNKLCGLAEVAVSFHG 146
 DB 167 SILAGSGKSCFCVCPHGVWGLSLAKA--EQLDPELHLPVYH-KVAVGEP 223

QY 147 FIVCGQDAPPLMD---YLGDANWLEPMFHS--GLELVGPGKGVIVAKHAPDAE 200
 DB 224 FVLELSRSLRSGQVGTGEMQTSIA---EDYKAHAFPSLOFI-HRSEFPMESNKKIFSD 279
 QY 201 NFVGDYHNVGWTH 213
 DB 280 NYLDSSHYVPYH 292

RESULT 12
 US-08-810-009-13
 Sequence 19, Application US/08810009
 Patent No. 6211437
 APPLICANT: Briggs, Steven P.
 APPLICANT: Gray, John
 APPLICANT: Johal, Gurmukh S.
 TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
 TITLE OF INVENTION: CELL DEATH AND DISEASE RESISTANCE IN PLANTS
 NUMBER OF SEQUENCES: 65
 CORRESPONDENCE ADDRESS:
 BRIGGS, STEVEN P.
 STREET: P.O. Box 34093
 CITY: Charlotte
 STATE: NC 2811437th Carolina
 COUNTRY: USA
 MEDIUM TYPE: FPOZY
 COMPUTER: IBM PC compatible
 SOFTWARE: Patent In Ver. 2.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/810,009
 FILING DATE: 04-Mar-1997
 CLASSIFICATION:
 ATTORNEY/AGENT INFORMATION:
 NAME: Spruill, M. Murray
 REGISTRATION NUMBER: 32,943
 ADDRESS: 10000 W. 17th Ave., Suite 770
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 919-881-3140
 TELEFAX: 919-881-3175
 INFORMATION FOR SEQ ID NO: 19:
 LENGTH: 35 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-810-009-13

Query Match
 Best Local Similarity 7.7%; Score 185; DB 3; Length 35;
 Matches 33; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 79 NVCHRGKTVNVRGNKGVYCVTHHSGHNGSL 113
 DB 1 NVCHRGKTVNVRGNKGVYCVTHHSGHNGSL 35

RESULT 13
 US-08-810-009-20
 Sequence 20, Application US/08810009
 Patent No. 6211437
 APPLICANT: Briggs, Steven P.
 APPLICANT: Johal, Gurmukh S.
 APPLICANT: Gray, John
 TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
 TITLE OF INVENTION: CELL DEATH AND DISEASE RESISTANCE IN PLANTS

```

NUMBER OF SEQUENCES: 65
CORRESPONDENCE ADDRESS:
  BRIGGS, STEVEN P. O. Drawer 34069
  STREET: Charlotte
  CITY: Charlotte
  STATE: No. 6211437th Carolina
  COUNTRY: USA
  ZIP: 28234
COMPUTER READABLE FORM:
  MEDIUM TYPE: Floppy disk
  COMPUTER: IBM PC compatible
  SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
  APPLICATION NUMBER: US/08/810,009
  FILING DATE: 04-MAR-1997
  CLASSIFICATION:
  ATTORNEY/AGENT INFORMATION:
    NAME: Spull, W. Murray
    REGISTRATION NUMBER: 32,943
    TELEPHONE: 919-881-3140
    TELEFAX: 919-881-3175
  INFORMATION FOR SEQ ID NO: 20:
    LENGTH: 35 amino acids
    STRANDNESS: amino acid
    TOPOLOGY: linear
    MOLECULE TYPE: protein
  US-08-810-009-20

Query Match
  Best Local Similarity 85.7%; Pred. No. 7,8e-10; Length 35;
  Matches 30; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 79 NVCHRGKTLVNAEAGNAGFCVCHGNGFGSGNK 113
DB 1 NVCHRGKTLVNAEAGNAGFCVCHGNGFGSGNK 35

RESULT 14
US-08-810-009-21
Sequence 21, Application US/08810009
GENERAL INFORMATION:
  APPLICANT: Briggs, Steven P.
  APPLICANT: John, Gurmukh S.
  TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
  TITLE OF INVENTION: CELL DEATH AND DISEASE RESISTANCE IN PLANTS
NUMBER OF SEQUENCES: 65
CORRESPONDENCE ADDRESS:
  BRIGGS, STEVEN P. O. Drawer 34069
  STREET: Charlotte
  CITY: Charlotte
  STATE: No. 6211437th Carolina
  COUNTRY: USA
  ZIP: 28234
COMPUTER READABLE FORM:
  MEDIUM TYPE: Floppy disk
  COMPUTER: IBM PC compatible
  SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
  APPLICATION NUMBER: US/08/810,009
  FILING DATE: 04-MAR-1997
  CLASSIFICATION:
  ATTORNEY/AGENT INFORMATION:
    NAME: Spull, W. Murray
    REGISTRATION NUMBER: 32,943

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REFERENCE/DOCKET NUMBER: 5718-4
TELECOMMUNICATION INFORMATION:
  TELEPHONE: 919-881-3140
  TELEFAX: 919-881-3175
  INFORMATION FOR SEQ ID NO: 21:
  SEQUENCE CHARACTERISTICS:
    LENGTH: 35 amino acids
    STRANDNESS: amino acid
    TOPOLOGY: linear
    MOLECULE TYPE: protein
  US-08-810-009-21

Query Match
  Best Local Similarity 80.0%; Pred. No. 2,9e-09; Length 35;
  Matches 28; Conservative 3; Mismatches 4; Indels 0; Gaps 0;

QY 79 NVCHRGKTLVNAEAGNAGFCVCHGNGFGSGNK 113
DB 1 NVCHRGKTLVNAEAGNAGFCVCHGNGFGSGNK 35

RESULT 15
US-09-252-991A-27100
Sequence 27100, Application US/09252991A
GENERAL INFORMATION:
  APPLICANT: Marc J. Rubenfield et al.
  TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
  FILE REFERENCE: 07/196,858
  CURRENT APPLICATION NUMBER: US/09/252,991A
  CURRENT FILING DATE: 1999-02-18
  PRIOR APPLICATION NUMBER: US 60/074,788
  PRIOR APPLICATION DATE: 1998-07-27
  PRIOR APPLICATION NUMBER: US 60/094,190
  PRIOR FILING DATE: 1998-07-27
  NUMBER OF SEQ ID NOS: 33142
  SEQUENCE ID NO: 100
  LENGTH: 629
  TYPE: PRT
  ORGANISM: Pseudomonas aeruginosa
  US-09-252-991A-27100

Query Match
  Best Local Similarity 6.0%; Score 143.5; DB 4; Length 629;
  Matches 65; Conservative 41; Mismatches 103; Indels 59; Gaps 13;

QY 4 NKVLVSSGLKSGHLL--HDELEFQELKTIKFN--WFLTHSLIPADQVYVAKM 59
DB 247 SNRFLFVQKLVFQSCGLAHNHWIOLOKQREDTPFNQAVVACTPDLAKP---LGRRI 303
QY 60 DILVYVQKQNSITAFILNVCHEK--TLVSYEAGNAGFCVCHGNGFGSGNCELSV 117
DB 304 CDEWFFVQKQREVALEDFCHFGAPISLGFVQD---VLVCGYGLNMGSDQRTAM 360
QY 118 PFEDLYGSELNKKGLGLEVA--VFSEFQVY--QCTQEPAPFMDYLDQAVKLEP 172
DB 361 P-----GQVGFQCFCTRRFPQKRGFVWVWFQAEQDAALPRL---EWASFP 407
QY 173 MKVSGSLHVGPKQKVTIKANKVAPNVQDAYVQWVWVWASL-----R 218
DB 408 DWAGGGL-----VHHCIDLMIDLML-DLTHYVASSIGQKIDEAPTRVE 458
QY 219 SGHSIFSLGALNALLP-----EENGL 240
DB 459 GQVITSHNQVAPFFRWALGNGLL 486

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Search completed: December 9, 2003, 15:45:54
 Job time : 13 secs

GenCore version 5.1.6
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ON protein - protein search, using sw model

Run on: December 9, 2003, 15:44:13 ; Search time 11.8571 Seconds
(without alignment)
1607.205 Million cell updates/sec

Title: US-09-843-250-35

Perfect score: 2408

Sequence: 1 MYNKLIVSGSLKIL.....AFPHASSTHFLTYRVR 449

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42110858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents AR:*

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3: /cgm2_6/prodata/1/aa/sa/COMB.pep:*

4: /cgm2_6/prodata/1/aa/sa/COMB.pep:*

5: /cgm2_6/prodata/1/aa/sa/COMB.pep:*

6: /cgm2_6/prodata/1/aa/sa/backfill.pep:*

Prod. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	409.5	17.0	463	4	US-09-252-991A-31367
2	407.5	16.9	494	4	US-09-328-352-6452
3	398	16	445	4	US-09-328-352-7248
4	393.5	16.0	471	4	US-09-328-352-7385
5	363	15.0	471	4	US-09-328-352-7385
6	347.5	14.4	445	4	US-09-252-991A-25088
7	294	12.2	445	4	US-09-252-991A-17164
8	271.5	11.5	525	4	US-09-328-352-4700
9	237.5	9.8	446	4	US-09-004-3338-1
10	224	9.3	446	4	US-09-004-3338-4
11	223	9.3	439	4	US-09-004-3338-2
12	193	7.7	35	3	US-08-810-009-19
13	184	7.7	35	3	US-08-810-009-19
14	168	7.0	35	3	US-08-810-009-21
15	143.5	6.0	629	4	US-09-252-991A-27100
16	128	5.3	392	4	US-09-328-352-6765
17	127	5.3	374	4	US-08-576-0638-4
18	113.5	4.9	374	4	US-08-576-0638-4
19	111	4.6	35	3	US-08-810-009-12
20	109	4.5	35	3	US-08-810-009-13
21	108	4.5	35	3	US-08-810-009-13
22	108	4.5	425	4	US-09-310-609-15
23	106	4.4	425	4	US-09-310-609-15
24	106	4.4	364	4	US-08-810-009-9
25	106	4.4	364	4	US-09-328-352-4956
26	104	4.3	35	3	US-08-810-009-18
27	103.5	4.3	432	3	US-08-809-313A-16

28	103.5	4.3	432	4	US-09-689-914A-15
29	103.5	4.3	432	4	US-09-689-914A-16
30	103.5	4.3	432	4	US-09-689-916A-16
31	103.5	4.3	649	3	US-08-809-326A-15
32	103.5	4.3	649	3	US-08-809-326A-15
33	103.5	4.3	649	4	US-09-689-913A-15
34	103.5	4.3	649	4	US-09-689-913A-15
35	103	4.3	35	3	US-08-810-009-11
36	102	4.2	35	3	US-08-810-009-8
37	102	4.2	35	3	US-08-810-009-44
38	101	4.2	17	3	US-08-810-009-44
39	101	4.2	17	3	US-08-810-009-45
40	100.5	4.2	363	4	US-09-328-352-5961
41	100.5	4.2	363	4	US-09-328-352-5961
42	99.5	4.1	256	4	US-09-328-352-57
43	99	4.1	1132	4	US-09-198-452A-466
44	97.5	4.0	395	4	US-09-252-991A-28371
45	95	3.9	17	3	US-08-810-009-46
46	95	3.9	17	3	US-08-810-009-46

ALIGNMENTS

US-09-252-991A-31367

Sequence 31367, Application US/09252991A

Patent No. 6551795

Applicant: Marc J. Rubinfeld et al.

INVENTOR: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS

CLASSIFICATION NUMBER: US 6/074,788

CROSS REFERENCE TO RELATED APPLICATIONS: US 09/252,991A

CURRENT FILING DATE: 1999-02-18

PRIOR FILING DATE: 1998-02-18

PRIOR FILING DATE: 1998-02-18

PRIOR FILING DATE: 1998-07-27

NUMBER OF SEQ ID NOS: 33142

SEQ ID NO 31367

LENGTH: 463

ORGANISM: Pseudomonas aeruginosa

US-09-252-991A-31367

Query Match

Best Local Similarity: 29.0%; Prod. No. 2,3e+30

Matches 110; Conservative: 69; Mismatches 149; Indels 51; Gaps 17;

QY 23 DEELQHEKLTIPANNEKIFRUSILIPACQYVAKMGKIVGVISQNSITANVCR 82

DB 38 BRPFLFELANGFEGNMYLHAHSGVAGWDLTVIGRGSIVIVARDCGLANFALS 97

QY 98 HRTKLVSRVAKNMGFVCSYHNGFGNSGLQV--FPKLVHESLNKVLG---LME 137

QY 98 HRTKLVSRVAKNMGFVCSYHNGFGNSGLQV--FPKLVHESLNKVLG---LME 137

QY 138 VARVSEFGTQVQDQAPPIIDQADATVPMFGH--CGLEVGPGKVTIKANK 196

DB 155 VARVSEFGTQVQDQAPPIIDQADATVPMFGH--CGLEVGPGKVTIKANK 214

QY 197 APANFVDVATNG---WTLAS---LRESGTFSSLAGNNAIPPGAGLQ 241

DB 215 LTKN--GUDQTHVSVMHTATATQDQDQDADPDR---MUNAGAR---GGQFY 265

QY 243 MYTSGGNGVAGDGVSHSADLVIE-LMAFGAGKRLKEIDVAAK--IYRSHLCT 299

DB 266 ---SFFGHGMLLMARNA-----PDRFA-----ERRALANDGEARADMTLSNLC 313

QY 300 VPFNSML--TCSGQFKVWNPIDANTVETVAIVKMDKPEDLKRLADSVORTLPGAFW 358

DB 314 LYPNVLMDQFSQRIARPLSVDTKTTTTCIYAPKGSASABARROYDFPWSGMA 373

359 ESDDNNMETASGKXKQ 377
 Db 374 TPDLDREPRSCQGS---TC 389

RESULT 2
 US-09-328-352-6452
 ; Sequence 6452, Application US/09328352
 ; Best Local Similarity 16.3%; Pred. No. 46-30; Indels 25; Gaps 13;
 ; Matches 120; Conservative 59; Mismatches 146;
 ; GENERAL INFORMATION:
 ; APPLICANT: Gary L. Breton et al.
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
 ; FILE REFERENCE: GTC99-038A
 ; CURRENT APPLICATION NUMBER: US/09/328,352
 ; CURRENT FILING DATE: 1999-06-04
 ; NUMBER OF SEQ ID NOS: 8252
 ; LENGTH: 496
 ; TYPE: PRT
 ; ORGANISM: Acinetobacter baumannii
 ; US-09-328-352-6452

Query Match 16.3%; Score 407.5; DB 4; Length 496;
 Best Local Similarity 31.3%; Pred. No. 46-30; Indels 25; Gaps 13;
 Matches 120; Conservative 59; Mismatches 146; Indels 25; Gaps 13;

23 DELFOELKLTFAEAMNLFTHSDSLIPADQGYTAAKGLDEVIVSGNDGSIATFANCR 82
 Db 73 DEALDEDMKATIFGEMVYIAHRSQIPNNDDYTYTGROPLITFANNRSELANINAGS 132
 Qy 83 HEGKTVSVAGNAKAFVCSYHGSGSGSGLSVPFEKOLYGSLSLKK-CLGKTVAR 140
 Db 133 HEGAGLCRYKGNKATTCFPHGTVFNSGLLYKYPDAGYSCDFNOGSHDLAKVAR 192
 Qy 141 VESPHGTVYCGFOEAPFADYLGDAAWYLEWFKS--GGLRLGPGKVIYAKWARA 199
 Db 193 FSYGKGLFSLGNDPVFLERFEGTKITDITVDQSENGLEVLGRSTTYTGKMWLTA 252
 Qy 200 ENYGDATKVG---HTHSLASGERSIFPSLGNALPFEA-GLMSTKVG--SGMVTI 253
 Db 253 EN-GLQHTSVANVHTATYQHRKE--TQAAINIPANGSKHGKGGSGYFENGML 309
 Qy 254 PGTGYSRDAUVELAPAGAKQBLNKELGHWAR--TYSHLCTVFPNNSMLFCSG 311
 Db 310 WYQANEDRPNPF-----KAEYETKYGKANSKMLERSR-NCLYLVAVMLDQFG 360
 Qy 312 -VYKWNPDANTSTWTAIVK--DMPEDAKRH 344
 Db 361 SQRLVLEPLSVNKEVTITVAPGSEAPNANH 395

RESULT 3
 US-09-328-352-7248
 ; Sequence 7248, Application US/09328352
 ; Patent No. 6562958
 ; GENERAL INFORMATION:
 ; APPLICANT: Breton et al.
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
 ; FILE REFERENCE: GTC99-038A
 ; CURRENT APPLICATION NUMBER: US/09/328,352
 ; CURRENT FILING DATE: 1999-06-04
 ; NUMBER OF SEQ ID NOS: 8252
 ; SEQ ID NO 7248
 ; LENGTH: 445
 ; TYPE: PRT
 ; ORGANISM: Acinetobacter baumannii
 ; US-09-328-352-7248

Query Match 16.1%; Score 380; DB 4; Length 445;
 Best Local Similarity 24.1%; Pred. No. 46-30; Indels 164; Gaps 21;
 Matches 124; Conservative 66; Mismatches 164; Indels 88; Gaps 21;

Qy 20 IHODELFOELKLTFAEAMNLFTHSDSLIPADQGYTAAKGLDEVIVSGNDGSIATFAN 79
 Db 47 LYKDERIFDEMEKIFSTVYVVAHASBIFPGSGYKTINIGKQPVVYVDRCKKVVALLN 106
 Qy 80 VCEHRKTVSVAGNAKAFVCSYHGSGSGSGLSVPFEKOLYGSLSLKKCLGKLEVA 139
 Db 107 RCRRAAYVCEHKKOKRNFVCFYHGYSALDGLGVP-SPESYGCDLSEKSLPLVSL- 164
 Qy 140 RVESPHGTVYCGFOEAPFADYLGDAAWYLEWFKSGLG--LELWGP-----PKGVIK 192
 Db 165 RYVYTGKIFASFEEDQLPELSEGLPAKMWIDLPWQAGYTPIKVLSHRTFPG----- 219
 Qy 193 ANKVAANVGVDAWVGHVTHASGLS-----GSHSLSLGNALPFEAGLQMTSKGS 248
 Db 220 -NMKQLSN-TTDAVHFFVHKSFLSVDSKTEELN-----FEN 257
 Qy 249 GNGULVPGYTSAGLADUFLVAFMGAKQKPR-LNKEIGVR-----ANIVR- 293
 Db 258 QGPFVEDLGNHGSVMMFELVDEELMERPFEDFELLAQADGSHSELEVLAVRA 317
 Qy 294 ---SHLCTVFPNNSMUTCS GYKWNPDANTSTWTAIVK---MPEDLRRLA 345
 Db 318 VGGSGPLNLPFN---TASNAFVPLVQTSVATETI-HSVITWGSQPIANQVRLJH 373
 Qy 346 DEVRTLPAGPMEEDNDNNETASQKGYQSGLSDLSLNGCEDVYGDVAVPGVG- 404
 Db 374 EHFQ--DPFGTGFDSAMENV-QUEAN-KADLWLMHNGS-----PEKVT 418
 Qy 405 ---KSAI-GETSTGTFRAVQ 421
 Db 419 EGGLKSDVTSMTGGGATYQMK 440

RESULT 4
 US-09-991A-31385
 ; Sequence 31385, Application US/09252991A
 ; Patent No. 6551795
 ; GENERAL INFORMATION:
 ; APPLICANT: Rubeinfeld et al.
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
 ; FILE REFERENCE: ABR9INGOA FOR DIAGNOSTICS AND THERAPEUTICS
 ; TITLE OF INVENTION: ABR9INGOA FOR DIAGNOSTICS AND THERAPEUTICS
 ; FILE REFERENCE: 107156.136
 ; CURRENT APPLICATION NUMBER: US/09/252,991A
 ; PRIOR APPLICATION NUMBER: US 60/074,788
 ; PRIOR FILING DATE: 1998-02-18
 ; PRIOR APPLICATION NUMBER: US 60/094,190
 ; PRIORITY CLAIM DATE: 1998-07-27
 ; NUMBER OF SEQ ID NOS: 33142
 ; SEQ ID NO 31385
 ; LENGTH: 466
 ; TYPE: PRT
 ; ORGANISM: Pseudomonas aeruginosa
 ; US-09-252-991A-31385

Query Match 16.0%; Score 384.5; DB 4; Length 466;
 Best Local Similarity 27.1%; Pred. No. 5-26-28;
 Matches 120; Conservative 77; Mismatches 182; Indels 63; Gaps 18;

23 DEELFOELKLTFAEAMNLFTHSDSLIPADQGYTAAKGLDEVIVSGNDGSIATFANCR 82
 Db 39 EPLFLDMLTETMMITACHSELAPHDVFLACAGQLVITROGQQLHADVAC 98
 Qy 83 HRGKTVSVAGNAKAFVCSYHGSGSGSGLSVPFEKOLYGSLSLKKCLGKLEVAR 140
 Db 99 HGVATVYKGNQSTTCTTFHMYCNDGLWLVYVAGE--YFEGDPTGGLK-AR 154
 Qy 141 VESPHGTVYCGFOEAPFADYLGDAAWYLEWFKS--GGLRLGPGKVIYAKWARA 197
 Db 155 IQSTGFPFVSLVDVAGDDVLDVGDARVPLDMVAGSPGSELELVITTYEDNKL 214
 Qy 198 PAENFVGDAWVGHVTHASGLSGLSFISSLGNALPFEAGLQMT---SKYSGWLV- 253

APPLICANT: Hanson D., Andrew
 APPLICANT: Rathinasabapathi, Bala
 APPLICANT: Burnett, Michael
 TITLE OF INVENTION: Polynucleotides Encoding Choline Monooxygenase and
 TITLE OF INVENTION: Plants Transformed Therewith
 FILE REFERENCE: UP-162
 CURRENT APPLICATION NUMBER: US/09/004,393B
 CURRENT FILING DATE: 1998-01-08
 PRIOR APPLICATION NUMBER: 60/035,147
 PRIOR FILING DATE: 1997-01-08
 NUMBER OF SEQ ID NOS: 6
 SOFTWARE: Patentin Ver. 2.0
 SEQ ID NO 1
 LENGTH: 446
 TYPE: PRT
 ORGANISM: Beta vulgaris
 US-09-004-393B-4
 Query Match
 Best Local Similarity 27.4%; Pred. No. 8.5e-13; Length 446;
 Matches 58; Conservative 37; Mismatches 97; Indels 20; Gaps 6;
 QY 11 ESSLGQHLTHGDEELFQHLALCTFANWLEFTHUSLIPAGQVYVYVNGIDVYVNGQ 70
 DB 99 EMLAFPSVYV 158
 QY 71 DQSLATLVNCGVGTCTVYVYVYVYVYVYVYVYVYVYVYVYVYVYVYVYVYVYV 130
 DB 159 QDELHARVHVCRA-SILACSGKSKCPVCPHGWYVGLDGLAKA-SKATETONLD 215
 QY 131 KULGHKVAIVSFHGVYVYVYVYVYVYVYVYVYVYVYVYVYVYVYVYVYVYVY 181
 DB 216 KGLGLAF-KVAGMGFFLILSLRSDNADVGTETVGSNAEDVKAHGFQPLKFTHE 274
 QY 182 LVGPGGVYV 213
 DB 275 F-----FMEGNKVPYVYVYVYVYVYVYVYVYVYVYVYVYVYVYVYVYV 299
 RESULT 11
 US-09-004-393B-2
 Sequence 2, Application US/0904393B
 Patent No. 6310271
 GENERAL INFORMATION:
 APPLICANT: Rathinasabapathi, Bala
 APPLICANT: Burnett, Michael
 TITLE OF INVENTION: Polynucleotides Encoding Choline Monooxygenase and
 TITLE OF INVENTION: Plants Transformed Therewith
 FILE REFERENCE: UP-162
 CURRENT APPLICATION NUMBER: US/09/004,393B
 CURRENT FILING DATE: 1998-01-08
 PRIOR APPLICATION NUMBER: 60/035,147
 PRIOR FILING DATE: 1997-01-08
 NUMBER OF SEQ ID NOS: 6
 SOFTWARE: Patentin Ver. 2.0
 SEQ ID NO 2
 LENGTH: 439
 TYPE: PRT
 ORGANISM: Spinacia oleracea
 US-09-004-393B-2
 Query Match
 Best Local Similarity 30.1%; Pred. No. 1e-12; Length 439;
 Matches 58; Conservative 36; Mismatches 83; Indels 14; Gaps 7;
 QY 27 FQELKLVYV 86
 DB 108 YSEHLERIFKGVQVAGVLSQLEKFPQVYVYVYVYVYVYVYVYVYVYVYVYV 166
 QY 87 TLVSVYV 146
 DB 167 SILAGSGKSCFCTFHWYVYVYVYVYVYVYVYVYVYVYVYVYVYVYVYVYV 223

QY 147 FLYVCFQFAPPLAD---YLGDVWYVYVYVYVYVYVYVYVYVYVYVYVYVYV 200
 DB 224 FVLISLDRSGEDGVGTWGLTSA---BDYKHAFTDSLQFI-HRSEFFMEGNKFTSD 279
 QY 201 NVGDVYV 213
 DB 280 NYLDSYV 292
 RESULT 12
 US-08-810-009-19
 Sequence 19, Application US/08810009
 Patent No. 6211437
 GENERAL INFORMATION:
 APPLICANT: Briggs, Steven P.
 APPLICANT: Johal, Gurmukh S.
 APPLICANT: Gray, John
 TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
 TITLE OF INVENTION: CELL DEATH AND DISEASE RESISTANCE IN PLANTS
 NUMBER OF SEQUENCES: 65
 CORRESPONDENCE ADDRESS:
 ADDRESS: BELL, SELTZER, PARK & GIBSON
 ADDRESS: One Tower 34009
 CITY: Charlotte
 STATE: No. 6211437th Carolina
 COUNTRY: USA
 COMPUTER READABLE FORM:
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 CURRENT APPLICATION DATA: Release #1.0, Version #1.30
 APPLICATION NUMBER: US/08/810,009
 FILING DATE: 04-MAR-1997
 AGENT: GIBSON, GARY
 ATTORNEY/AGENT INFORMATION:
 NAME: Spruill, W. Murray
 REGISTRATION NUMBER: 32,943
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 919-881-3140
 TELEFAX: 919-881-3175
 ALEX: 575102 ID NO: 19;
 INFORMATION: 19;
 SEQUENCE CHARACTERISTICS:
 LENGTH: 35 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-810-009-19
 Query Match
 Best Local Similarity 94.3%; Pred. No. 8.9e-11; Length 35;
 Matches 33; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 QY 79 NYCHRGATLVYV 113
 DB 1 NYCHRGATLVYV 35
 RESULT 13
 US-08-810-009-20
 Sequence 20, Application US/08810009
 Patent No. 6211437
 GENERAL INFORMATION:
 APPLICANT: Briggs, Steven P.
 APPLICANT: Johal, Gurmukh S.
 APPLICANT: Gray, John
 TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
 TITLE OF INVENTION: CELL DEATH AND DISEASE RESISTANCE IN PLANTS

```

1 NUMBER OF SEQUENCES: 65
2 CORRESPONDENCE ADDRESS:
3 STEPHEN P. BILL, SUTTZER, PARK & GIBSON
4 CITY: Charlotte
5 STATE: No. 6211437th Carolina
6 COUNTRY: USA
7 COUNTY: 62
8 COMPUTER READABLE FORM:
9 MEDIUM TYPE: Floppy disk
10 COMPUTER: IBM PC compatible
11 OPERATING SYSTEM: PC-DOS/MS-DOS
12 SOFTWARE: PRACIN Software #1.0, Version #1.30
13 CURRENT APPLICATION DATA:
14 APPLICATION NUMBER: US/08/810,009
15 FILING DATE: 04-MAR-1997
16 ATTORNEY/AGENT INFORMATION:
17 NAME: Sprull, W. Murray
18 REGISTRATION NUMBER: 32,943
19 TELEPHONE: 919-881-3140
20 TELEFAX: 919-881-3175
21 INFORMATION:
22 INFORMATION ID NO: 20;
23 SEQUENCE CHARACTERISTICS:
24 TYPE: amino acid
25 LENGTH: 35 amino acids
26 TOPOLOGY: linear
27 MOLECULE TYPE: protein
28 US-08-810-009-20
29
30 Query Watch
31 Best Local Similarity 85.71; Pred No. 9 Be-10; Length 35;
32 Matches 30; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
33
34 QY 79 NVCHRGKTVSVNAGNAGKPVCGVGHGFGSNGK 113
35 DB 1 NVCHRGKTVSVNAGNAGKPVCGVGHGFGSNGK 35
36
37 RESULT 14
38 US-08-810-009-21
39 Sequence 21, Application US/0881009
40 Best Local Similarity 85.71; Pred No. 9 Be-10; Length 35;
41 Matches 30; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
42
43 GENERAL INFORMATION:
44 APPLICANT: Bi-ggs, Steven P.
45 APPLICANT: Gray, John
46 TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
47 TITLE OF INVENTION: CELL DEATH AND DISEASE RESISTANCE IN PLANTS
48 NUMBER OF SEQUENCES: 65
49 CORRESPONDENCE ADDRESS:
50 ADDRESSES: BILL, SUTTZER, PARK & GIBSON
51 CITY: Charlotte
52 STATE: No. 6211437th Carolina
53 COUNTRY: USA
54 COUNTY: 62
55 COMPUTER READABLE FORM:
56 MEDIUM TYPE: Floppy disk
57 COMPUTER: IBM PC compatible
58 OPERATING SYSTEM: PC-DOS/MS-DOS
59 SOFTWARE: PRACIN Software #1.0, Version #1.30
60 CURRENT APPLICATION DATA:
61 APPLICATION NUMBER: US/08/810,009
62 FILING DATE: 04-MAR-1997
63 ATTORNEY/AGENT INFORMATION:
64 NAME: Sprull, W. Murray
65 REGISTRATION NUMBER: 32,943

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1 REFERENCE/DOCKET NUMBER: 5718-4
2 TELECOMMUNICATION INFORMATION:
3 TELEPHONE: 919-881-3140
4 TELEFAX: 919-881-3175
5 INFORMATION FOR SEQ ID NO: 21:
6 SEQUENCE CHARACTERISTICS:
7 LENGTH: 35 amino acids
8 TYPE: amino acid
9 STRANDEDNESS:
10 TOPOLOGY: linear
11 MOLECULE TYPE: protein
12 US-08-810-009-21
13
14 Query Watch
15 Best Local Similarity 80.04; Pred No. 3.6e-09; Length 35;
16 Matches 28; Conservative 3; Mismatches 4; Indels 0; Gaps 0;
17
18 QY 79 NVCHRGKTVSVNAGNAGKPVCGVGHGFGSNGK 113
19 DB 1 NVCHRGKTVSVNAGNAGKPVCGVGHGFGSNGK 35
20
21 RESULT 15
22 US-09-252-991A-27100
23 Sequence 27100, Application US/09252991A
24 Best Local Similarity 6.04; Pred No. 6.2e-05; Length 629;
25 Matches 65; Conservative 41; Mismatches 103; Indels 59; Gaps 13;
26
27 GENERAL INFORMATION:
28 APPLICANT: Marc J. Rubenfield et al.
29 TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
30 TITLE OF INVENTION: ASSIGNING A GINOSIA FOR DIAGNOSTICS AND THERAPEUTICS
31 FILL REPRESENTATION:
32 CURRENT APPLICATION NUMBER: US/09/252,991A
33 CURRENT FILING DATE: 1998-02-18
34 PRIOR APPLICATION NUMBER: US 60/074,788
35 PRIOR FILING DATE: 1998-02-18
36 PRIOR APPLICATION NUMBER: US 60/094,190
37 PRIOR FILING DATE: 1998-07-27
38 NUMBER OF SEQ ID NOS: 33142
39 SEQ ID NO: 2100
40 LENGTH: 629
41 TYPE: PRT
42 ORGANISM: Pseudomonas aeruginosa
43 US-09-252-991A-27100
44
45 Query Watch
46 Best Local Similarity 24.38; Pred No. 6.2e-05; Length 629;
47 Matches 65; Conservative 41; Mismatches 103; Indels 59; Gaps 13;
48
49 QY 4 NKKLVSESGLSQHLA--HGDSELPQHEKATIPAN--RLFLTHDSLIPAGDYVIAFM 59
50 DB 247 SRRFLPVQKRLTWGCLANHHVQLQKQEDPTMPFANATVACTPDLAQP---LGRRI 303
51 DB 60 GIDVFVVRGNDSTAEFLANVCHRRK--TLVSVNAGKPVCGVGHGFGSNGKSLV 117
52 DB 304 CDEPWFVFGNGEVALDECFHRGAGLGLFVFG---VLVCGYGLAMSEDSQETAM 360
53 QY 118 PFEDVLKGSLLNKKCLAEVAV--VSPFGITY---GCFQEPAPIMVIGADMTLEP 172
54 DB 361 P-----GQVRFQCFIRFFVQGRGVFWFQFQADALIPR---EWASSP 407
55 QY 173 MFKRSQELVNGPKVPIKANKKAPNVPQDAVYGVMTASSI-----F 218
56 DB 408 DWAYGGGL-----VTHICDLMIDNLM-DLTHETVWASSI-CQKDEIDAPATTVR 458
57 QY 219 SGRTFSLAGNAAAPP-----EQAGL 240
58 DB 459 GIDVITSRHKQVWAPFPAALGNBL 464
59
60 Search completed: December 9, 2003, 15:45:55
61 000 time : 12 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 9, 2003, 15:44:14, Search time 22.1429 Seconds
(without alignments)
371.265 Million cell updates/sec

Title: US-09-843-250-35

Perfect score: 2408

Sequence: 1 MYNNKLVSGSLGSGRLH.....AFFHSSSTHTELTETTOR 449

Scoring table: BLOSUM62

Gapop 10.0, Gapext 0.5

Searched: 684280 seqs, 185983659 residues

Total number of hits satisfying chosen parameters: 684280

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database:

Published Applications AA:
1: /cgm2_6/prodata/1/pubpaa/US07_FUBCOMB.pep.*
2: /cgm2_6/prodata/1/pubpaa/US07_FUB.pep.*
3: /cgm2_6/prodata/1/pubpaa/US06_FUBCOMB.pep.*
4: /cgm2_6/prodata/1/pubpaa/US06_FUBCOMB.pep.*
5: /cgm2_6/prodata/1/pubpaa/US07_NEW_FUB.pep.*
6: /cgm2_6/prodata/1/pubpaa/CTUS_FUBCOMB.pep.*
7: /cgm2_6/prodata/1/pubpaa/US08_FUBCOMB.pep.*
8: /cgm2_6/prodata/1/pubpaa/US08_FUBCOMB.pep.*
9: /cgm2_6/prodata/1/pubpaa/US09_FUBCOMB.pep.*
10: /cgm2_6/prodata/1/pubpaa/US09_FUBCOMB.pep.*
11: /cgm2_6/prodata/1/pubpaa/US09_FUBCOMB.pep.*
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13: /cgm2_6/prodata/1/pubpaa/US10_FUBCOMB.pep.*
14: /cgm2_6/prodata/1/pubpaa/US108_FUBCOMB.pep.*
15: /cgm2_6/prodata/1/pubpaa/US108_FUBCOMB.pep.*
16: /cgm2_6/prodata/1/pubpaa/US108_FUBCOMB.pep.*
17: /cgm2_6/prodata/1/pubpaa/US60_NEW_FUB.pep.*
18: /cgm2_6/prodata/1/pubpaa/US60_FUBCOMB.pep.*

Prod. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2408	99.9	449	11	US-09-843-250-35
2	2406	99.9	449	11	US-09-843-250-35
3	2405	99.9	449	11	US-09-843-250-35
4	2405	99.9	449	11	US-09-843-250-15
5	2405	99.8	449	11	US-09-843-250-15
6	2405	99.8	449	11	US-09-843-250-15
7	2403	99.8	449	11	US-09-843-250-33
8	2403	99.8	449	11	US-09-843-250-34
9	2403	99.8	449	11	US-09-843-250-59
10	2403	99.8	449	11	US-09-843-250-59
11	2400	99.7	449	11	US-09-843-250-18
12	2400	99.7	449	11	US-09-843-250-32
13	2395	99.5	449	11	US-09-843-250-17
14	2387	97.5	449	11	US-09-843-250-18
15	2319	90.3	449	11	US-09-843-250-19

16	2293	95.2	449	11	US-09-843-250-20
17	2220	92.2	449	11	US-09-843-250-21
18	2190	90.9	447	11	US-09-843-250-22
19	2053	85.3	447	11	US-09-843-250-23
20	1967.5	80.6	443	11	US-09-843-250-24
21	1967.5	80.6	443	11	US-09-843-250-10583
22	377	15.7	490	10	US-09-738-626-6140
23	376.5	15.6	385	9	US-09-815-242-11692
24	339.5	14.1	454	9	US-09-815-242-5977
25	241.5	10.6	335	9	US-09-776-490-19
26	241.5	10.6	335	9	US-09-776-490-19
27	185	7.7	35	9	US-09-776-491-19
28	174	7.2	35	9	US-09-776-490-20
29	164	7.2	35	9	US-09-776-490-21
30	164	7.2	35	9	US-09-776-490-21
31	168	7.0	35	9	US-09-776-491-21
32	118.5	4.9	354	8	US-08-976-063C-41
33	110	4.6	35	9	US-09-776-490-12
34	108	4.5	35	9	US-09-776-490-13
35	109	4.5	35	9	US-09-776-490-14
36	109	4.5	35	9	US-09-776-491-14
37	108	4.5	35	9	US-09-776-490-13
38	108	4.5	35	9	US-09-776-490-15
39	108	4.5	35	9	US-09-776-490-15
40	108	4.5	35	9	US-09-776-491-15
41	108	4.5	622	15	US-10-124-880-4
42	107.5	4.5	548	14	US-10-047-542-78
43	106.5	4.4	935	0	US-09-776-490-19
44	106	4.4	35	9	US-09-776-490-9
45	106	4.4	35	9	US-09-776-491-9

ALIGNMENTS

RESULT 1
US-09-843-250-35
Publication US/09841250
GENERAL INFORMATION:
Publication No. US2003002335A1
APPLICANT: Paralels, D.
INVENTOR: Paralels, D.
APPLICANT: Reanick, S.
TITLE: Lee, K.
TITLE OF INVENTION: NO. US2003002335A1 naphthalene dioxygenase and methods for the
CURRENT APPLICATION NUMBER: US/09/843,250
PRIOR APPLICATION NUMBER: PCT/US99/25079
PRIOR FILING DATE: 2001-04-26
CURRENT FILING DATE: 2001-04-26
PRIOR APPLICATION NUMBER: US 60/105,575
PRIOR FILING DATE: 1998-10-26
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO: 1
LENGTH: 449
TYPE: PRT
ORGANISM: Artificial Sequence
COMMENT: A polypeptide encoded by SEQ ID NO:30.
US-09-843-250-35
Query Match: 100.0%; Score 2408; DE 11; Length 449;
Query Match Similarity: 100.0%; From: 26-22; Indels: 0; Gaps: 0;
Matches 449; Conservative: 0; Mismatches 0;
Qy 1 MYNNKLVSGSLGSLGRLHQLKLTETTORITFANMLFTHSLIPADNYTANG 60
Db 1 MYNNKLVSGSLGSLGRLHQLKLTETTORITFANMLFTHSLIPADNYTANG 60
Qy 61 IDBITVSKQDSISATFANVCRKNTLVSPAGAKPTFVHGFGSGNGSLQVTFE 120
Db 61 IDBITVSKQDSISATFANVCRKNTLVSPAGAKPTFVHGFGSGNGSLQVTFE 120

QY 121 KDLVGLSKKKLGLKEVAEVESPHGTTCQDPAFLMDYLDGDAWYLPMPHSGGL 180
 DB 121 KDLVGLSKKKLGLKEVAEVESPHGTTCQDPAFLMDYLDGDAWYLPMPHSGGL 180
 QY 181 ELVGPQKVITAKMKAPELVGDVAVHGVHTHASSISGESIFSSLAGNAALPPGAGL 240
 DB 181 ELVGPQKVITAKMKAPELVGDVAVHGVHTHASSISGESIFSSLAGNAALPPGAGL 240
 QY 241 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 DB 241 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 QY 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 DB 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 QY 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420
 DB 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420
 QY 421 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 DB 421 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 QY 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 DB 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
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 DB 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420
 QY 421 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 DB 421 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 QY 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 DB 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 QY 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420
 DB 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420

RESULT 2
 / US-09-843-250-36
 / Sequence 36, Application US/09843250
 / Publication No. US20030022335A1
 / GENERAL INFORMATION:
 / APPLICANT: Paralee, R.
 / APPLICANT: Gibson, D.
 / APPLICANT: Resnick, S.
 / TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
 / FILE REFERENCE: 875, 006US2
 / CURRENT APPLICATION NUMBER: US/09/843,250
 / PRIOR FILING DATE: 2001-04-26
 / PRIOR APPLICATION NUMBER: PCT/US99/25079
 / PRIOR FILING DATE: 1999-10-26
 / PRIOR APPLICATION NUMBER: US 60/105,575
 / PRIOR FILING DATE: 1998-10-26
 / SOFTWARE: PatentSeq for Windows Version 4.0
 / SEQ ID NO 36
 / LENGTH: 449
 / ORGANISM: Artificial Sequence
 / FEATURE:
 / OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:31.
 / US-09-843-250-36

Query Match 95.9%; Score 2406; DB 11; Length 449;
 Best Local Similarity 95.8%; Pred. No. 8.1e-225;
 Matches 448; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MYNNKXILVBSGSLGSLHGHDELFQHEKLTIPANNMLFTHDSLIIPAGDYVTHNG 60
 DB 1 MYNNKXILVBSGSLGSLHGHDELFQHEKLTIPANNMLFTHDSLIIPAGDYVTHNG 60
 QY 61 IDVTVSQNGDSIFATVCHRGKTLVSTVAGNAAGVSTGHWGSGNGLGVYVPE 120
 DB 61 IDVTVSQNGDSIFATVCHRGKTLVSTVAGNAAGVSTGHWGSGNGLGVYVPE 120
 QY 121 KDLVGLSKKKLGLKEVAEVESPHGTTCQDPAFLMDYLDGDAWYLPMPHSGGL 180
 DB 121 KDLVGLSKKKLGLKEVAEVESPHGTTCQDPAFLMDYLDGDAWYLPMPHSGGL 180
 QY 181 ELVGPQKVITAKMKAPELVGDVAVHGVHTHASSISGESIFSSLAGNAALPPGAGL 240
 DB 181 ELVGPQKVITAKMKAPELVGDVAVHGVHTHASSISGESIFSSLAGNAALPPGAGL 240
 QY 241 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 DB 241 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 QY 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 DB 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 QY 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420
 DB 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420

QY 241 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 DB 241 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 QY 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 DB 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 QY 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420
 DB 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420
 QY 421 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 DB 421 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 QY 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 DB 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 QY 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420
 DB 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420
 QY 421 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 DB 421 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 QY 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 DB 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 QY 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420
 DB 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420

RESULT 3
 / US-09-843-250-2
 / Sequence 2, Application US/09843250
 / Publication No. US20030022335A1
 / GENERAL INFORMATION:
 / APPLICANT: Paralee, R.
 / APPLICANT: Gibson, D.
 / APPLICANT: Resnick, S.
 / TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
 / FILE REFERENCE: 875, 006US2
 / CURRENT APPLICATION NUMBER: US/09/843,250
 / PRIOR FILING DATE: 2001-04-26
 / PRIOR APPLICATION NUMBER: PCT/US99/25079
 / PRIOR FILING DATE: 1999-10-26
 / PRIOR APPLICATION NUMBER: US 60/105,575
 / PRIOR FILING DATE: 1998-10-26
 / SOFTWARE: PatentSeq for Windows Version 4.0
 / SEQ ID NO 2
 / LENGTH: 449
 / ORGANISM: Artificial Sequence
 / FEATURE:
 / OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:1
 / US-09-843-250-2

Query Match 95.8%; Score 2405; DB 11; Length 449;
 Best Local Similarity 95.8%; Pred. No. 1e-225;
 Matches 448; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MYNNKXILVBSGSLGSLHGHDELFQHEKLTIPANNMLFTHDSLIIPAGDYVTHNG 60
 DB 1 MYNNKXILVBSGSLGSLHGHDELFQHEKLTIPANNMLFTHDSLIIPAGDYVTHNG 60
 QY 61 IDVTVSQNGDSIFATVCHRGKTLVSTVAGNAAGVSTGHWGSGNGLGVYVPE 120
 DB 61 IDVTVSQNGDSIFATVCHRGKTLVSTVAGNAAGVSTGHWGSGNGLGVYVPE 120
 QY 121 KDLVGLSKKKLGLKEVAEVESPHGTTCQDPAFLMDYLDGDAWYLPMPHSGGL 180
 DB 121 KDLVGLSKKKLGLKEVAEVESPHGTTCQDPAFLMDYLDGDAWYLPMPHSGGL 180
 QY 181 ELVGPQKVITAKMKAPELVGDVAVHGVHTHASSISGESIFSSLAGNAALPPGAGL 240
 DB 181 ELVGPQKVITAKMKAPELVGDVAVHGVHTHASSISGESIFSSLAGNAALPPGAGL 240
 QY 241 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 DB 241 QMTKYSQSGWGLMDQYVSFSDADVPELMAGLGVGKVAEKLADSVQRTLGAPFMS 360
 QY 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 DB 301 FNNSSMLTCSGVFKVPMIDANTTEWVTALVEKMDPELKEKLADSVQRTLGAPFMS 420
 QY 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420
 DB 361 DNDNMETASQNGKATQSRSDLSNLGSDGVGDVADYFVGVKSAIGETSYGPFYAY 420

Db 361 DNDNNMTASQNGKQRESDLSNLGRFSDYGVADYFVGVKSAIGETSTGCTFAY 420
 Qy 421 QNVSSNNWAFPHASSTHTTELTKTDR 449
 Db 421 QNVSSNNWAFPHASSTHTTELTKTDR 449

RESULT 6
 US-09-843-250-14
 ; Sequence 14, Application US/09843250
 ; Publication No. US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Parales, R.
 ; INVENTOR: Parales, R.
 ; APPLICANT: Reznick, S.
 ; APPLICANT: Lee, K.
 ; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
 ; FILE REPRESENTATION: US/09/843,250
 ; CURRENT APPLICATION NUMBER: US/09/843,250
 ; PRIOR FILING DATE: 2001-04-26
 ; PRIOR APPLICATION NUMBER: PCT/US99/25079
 ; PRIOR FILING DATE: 1998-10-26
 ; PRIOR APPLICATION NUMBER: US 60/105,575
 ; NUMBER OF SEQ ID NOS: 65
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 14
 ; LENGTH: 449
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:3.
 US-09-843-250-14

Query Match 98.94; Score 2405; DB 11; Length 449;
 Best Local Similarity 99.84; Pred. No. 1e-225; 0; Indels 0; Gaps 0;
 Matches 448; Conservative 1; Mismatches 0;
 Qy 1 MATNNKLVSSSGLSQHLHDEELFQELKTIPTANWLFTHSLIPAGDYVYVANG 60
 Db 1 MATNNKLVSSSGLSQHLHDEELFQELKTIPTANWLFTHSLIPAGDYVYVANG 60
 Qy 61 IDVVIVSQNDGSITAFVCHURKGLTVSVGNAGKGFVCSYHGMFGSNGELQSPPE 120
 Db 61 IDVVIVSQNDGSITAFVCHURKGLTVSVGNAGKGFVCSYHGMFGSNGELQSPPE 120
 Qy 121 KDIYGSINKKCLGLKEVAVESFGTGYGCPQAPPLMDYLGDAVYLPMPHBSGGL 180
 Db 121 KDIYGSINKKCLGLKEVAVESFGTGYGCPQAPPLMDYLGDAVYLPMPHBSGGL 180
 Qy 181 ELVGPQGVYIKANKKAPAFVGDVAVHGVTHASSLSGESIFSSLGAGNALPPEAGL 240
 Db 181 ELVGPQGVYIKANKKAPAFVGDVAVHGVTHASSLSGESIFSSLGAGNALPPEAGL 240
 Qy 241 QMTKYSGSGVGLMDGYSVHSADLVPELMAFGAQKRLKEIGDVARVYSHLNTCTV 300
 Db 241 QMTKYSGSGVGLMDGYSVHSADLVPELMAFGAQKRLKEIGDVARVYSHLNTCTV 300
 Qy 301 FNNNSMLTCGVFKVNPVDANTTEWTVTAIVKMPEDKRLADSVORTLGPAGWES 360
 Db 301 FNNNSMLTCGVFKVNPVDANTTEWTVTAIVKMPEDKRLADSVORTLGPAGWES 360
 Qy 421 QNVSSNNWAFPHASSTHTTELTKTDR 449
 Db 421 QNVSSNNWAFPHASSTHTTELTKTDR 449

RESULT 5

US-09-843-250-15
 ; Sequence 15, Application US/09843250
 ; Publication No. US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Parales, R.
 ; INVENTOR: Parales, R.
 ; APPLICANT: Reznick, S.
 ; APPLICANT: Lee, K.
 ; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
 ; FILE REPRESENTATION: US/09/843,250
 ; CURRENT APPLICATION NUMBER: US/09/843,250
 ; PRIOR FILING DATE: 2001-04-26
 ; PRIOR APPLICATION NUMBER: PCT/US99/25079
 ; PRIOR FILING DATE: 1998-10-26
 ; PRIOR APPLICATION NUMBER: US 60/105,575
 ; NUMBER OF SEQ ID NOS: 65
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 15
 ; LENGTH: 449
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:4.
 US-09-843-250-15

Query Match 99.94; Score 2405; DB 11; Length 449;
 Best Local Similarity 99.84; Pred. No. 1e-225; 0; Indels 0; Gaps 0;
 Matches 448; Conservative 1; Mismatches 0;
 Qy 1 MATNNKLVSSSGLSQHLHDEELFQELKTIPTANWLFTHSLIPAGDYVYVANG 60
 Db 1 MATNNKLVSSSGLSQHLHDEELFQELKTIPTANWLFTHSLIPAGDYVYVANG 60
 Qy 61 IDVVIVSQNDGSITAFVCHURKGLTVSVGNAGKGFVCSYHGMFGSNGELQSPPE 120
 Db 61 IDVVIVSQNDGSITAFVCHURKGLTVSVGNAGKGFVCSYHGMFGSNGELQSPPE 120
 Qy 121 KDIYGSINKKCLGLKEVAVESFGTGYGCPQAPPLMDYLGDAVYLPMPHBSGGL 180
 Db 121 KDIYGSINKKCLGLKEVAVESFGTGYGCPQAPPLMDYLGDAVYLPMPHBSGGL 180
 Qy 181 ELVGPQGVYIKANKKAPAFVGDVAVHGVTHASSLSGESIFSSLGAGNALPPEAGL 240
 Db 181 ELVGPQGVYIKANKKAPAFVGDVAVHGVTHASSLSGESIFSSLGAGNALPPEAGL 240
 Qy 241 QMTKYSGSGVGLMDGYSVHSADLVPELMAFGAQKRLKEIGDVARVYSHLNTCTV 300
 Db 241 QMTKYSGSGVGLMDGYSVHSADLVPELMAFGAQKRLKEIGDVARVYSHLNTCTV 300
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 Db 301 FNNNSMLTCGVFKVNPVDANTTEWTVTAIVKMPEDKRLADSVORTLGPAGWES 360
 Qy 421 QNVSSNNWAFPHASSTHTTELTKTDR 449
 Db 421 QNVSSNNWAFPHASSTHTTELTKTDR 449

RESULT 6
 US-09-843-250-26
 ; Sequence 26, Application US/09843250
 ; Publication No. US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Parales, R.
 ; INVENTOR: Parales, R.
 ; APPLICANT: Reznick, S.
 ; APPLICANT: Lee, K.
 ; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the

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/ FILE REFERENCE: 075.06US2
/ CURRENT APPLICATION NUMBER: US/09/843,250
/ CURRENT FILING DATE: 2001-04-26
/ PRIOR APPLICATION NUMBER: PCT/US99/25079
/ PRIOR FILING DATE: 1999-10-26 60/105,575
/ PRIOR FILING DATE: 1998-10-26
/ NUMBER OF SEQ ID NOS: 65
/ SOFTWARE: FastSeq for Windows Version 4.0
/ SEQ ID NO 33
/ LENGTH: 449
/ TYPE: PRT
/ ORGANISM: Pseudomonas sp.
US-09-843-250-26

```

```

Query Match          99.8%; Score 2404; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 1.3e-225;
Matches 449; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```

```

QY 1 MYNNKLLVSSGSLQHLHGDELEFQHEKLTIFARNMLFLTHDSLIPADQVYVANG 60
DB 1 MYNNKLLVSSGSLQHLHGDELEFQHEKLTIFARNMLFLTHDSLIPADQVYVANG 60
QY 61 IDEVIVSRQNDGSTRFANVCHRGKTLVSVAGNAGKFTVCHMGFGSNGELQSVPE 120
DB 61 IDEVIVSRQNDGSTRFANVCHRGKTLVSVAGNAGKFTVCHMGFGSNGELQSVPE 120
QY 121 KDLVSGSLNKCKLGLKEVAIVSFHGYTCGFCQAPPLMDYLDAAWYLEMPFHSOGL 180
DB 121 KDLVSGSLNKCKLGLKEVAIVSFHGYTCGFCQAPPLMDYLDAAWYLEMPFHSOGL 180
QY 181 ELVGPQKVTYKAWKPAFNVGDVAVHVGWTHASSGSEIFSSLAGNALPPGAGL 240
DB 181 ELVGPQKVTYKAWKPAFNVGDVAVHVGWTHASSGSEIFSSLAGNALPPGAGL 240
QY 241 QNTSKYSGMGTLYKQVSGHSDLLNLGFGEDVDVGVGVGVGSAIGTSYAGFYAY 300
DB 241 QNTSKYSGMGTLYKQVSGHSDLLNLGFGEDVDVGVGVGVGSAIGTSYAGFYAY 300
QY 301 FPNNSWZTCGVYKWPFDANTTEVTVAVLVEKMPEDLRELAASVQRTGAPGWS 360
DB 301 FPNNSWZTCGVYKWPFDANTTEVTVAVLVEKMPEDLRELAASVQRTGAPGWS 360
QY 361 DDNNMETASQNKTKYSGHSDLLNLGFGEDVDVGVGVGVGSAIGTSYAGFYAY 420
DB 361 DDNNMETASQNKTKYSGHSDLLNLGFGEDVDVGVGVGVGSAIGTSYAGFYAY 420
QY 421 QNVSSNNWAFPEASSTWHTLETKTDR 449
DB 421 QNVSSNNWAFPEASSTWHTLETKTDR 449

```

```

RESULT 7
US-09-843-250-33
Sequence 33, Application US/09843250
Publication No. US20030022335A1
GENERAL INFORMATION:
APPLICANT: Petrasen, B.
APPLICANT: Petrasen, B.
APPLICANT: Reenick, S.
APPLICANT: Lee, K.
TITLE OF INVENTION: 004US
CURRENT APPLICATION NUMBER: US/09/843,250
CURRENT FILING DATE: 2001-04-26
PRIOR APPLICATION NUMBER: PCT/US99/25079
PRIOR FILING DATE: 1999-10-26 60/105,575
PRIOR FILING DATE: 1998-10-26
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 33
LENGTH: 449
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURES:
ORIGIN:
COMPLEMENTARY INFORMATION: A polypeptide encoded by SEQ ID NO:29.
US-09-843-250-34
Query Match          99.8%; Score 2403; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 1.6e-225;
Matches 449; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```

```

/ TYPE: PRT
/ ORGANISM: Artificial Sequence
/ FEATURE:
/ OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:28.
US-09-843-250-33

```

```

Query Match          99.8%; Score 2403; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 1.6e-225;
Matches 449; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```

```

QY 1 MYNNKLLVSSGSLQHLHGDELEFQHEKLTIFARNMLFLTHDSLIPADQVYVANG 60
DB 1 MYNNKLLVSSGSLQHLHGDELEFQHEKLTIFARNMLFLTHDSLIPADQVYVANG 60
QY 61 IDEVIVSRQNDGSTRFANVCHRGKTLVSVAGNAGKFTVCHMGFGSNGELQSVPE 120
DB 61 IDEVIVSRQNDGSTRFANVCHRGKTLVSVAGNAGKFTVCHMGFGSNGELQSVPE 120
QY 121 KDLVSGSLNKCKLGLKEVAIVSFHGYTCGFCQAPPLMDYLDAAWYLEMPFHSOGL 180
DB 121 KDLVSGSLNKCKLGLKEVAIVSFHGYTCGFCQAPPLMDYLDAAWYLEMPFHSOGL 180
QY 181 ELVGPQKVTYKAWKPAFNVGDVAVHVGWTHASSGSEIFSSLAGNALPPGAGL 240
DB 181 ELVGPQKVTYKAWKPAFNVGDVAVHVGWTHASSGSEIFSSLAGNALPPGAGL 240
QY 241 QNTSKYSGMGTLYKQVSGHSDLLNLGFGEDVDVGVGVGVGSAIGTSYAGFYAY 300
DB 241 QNTSKYSGMGTLYKQVSGHSDLLNLGFGEDVDVGVGVGVGSAIGTSYAGFYAY 300
QY 301 FPNNSWZTCGVYKWPFDANTTEVTVAVLVEKMPEDLRELAASVQRTGAPGWS 360
DB 301 FPNNSWZTCGVYKWPFDANTTEVTVAVLVEKMPEDLRELAASVQRTGAPGWS 360
QY 361 DDNNMETASQNKTKYSGHSDLLNLGFGEDVDVGVGVGVGSAIGTSYAGFYAY 420
DB 361 DDNNMETASQNKTKYSGHSDLLNLGFGEDVDVGVGVGVGSAIGTSYAGFYAY 420
QY 421 QNVSSNNWAFPEASSTWHTLETKTDR 449
DB 421 QNVSSNNWAFPEASSTWHTLETKTDR 449

```

```

RESULT 8
US-09-843-250-34
Sequence 34, Application US/09843250
Publication No. US20030022335A1
GENERAL INFORMATION:
APPLICANT: Petrasen, B.
APPLICANT: Petrasen, B.
APPLICANT: Reenick, S.
APPLICANT: Lee, K.
TITLE OF INVENTION: 004US
CURRENT APPLICATION NUMBER: US/09/843,250
CURRENT FILING DATE: 2001-04-26
PRIOR APPLICATION NUMBER: PCT/US99/25079
PRIOR FILING DATE: 1999-10-26 60/105,575
PRIOR FILING DATE: 1998-10-26
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 34
LENGTH: 449
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURES:
ORIGIN:
COMPLEMENTARY INFORMATION: A polypeptide encoded by SEQ ID NO:29.
US-09-843-250-34
Query Match          99.8%; Score 2403; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 1.6e-225;
Matches 449; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```

```

QY 1 MYNNKLIVSSGSLSQGLIHDSBELFOHEKLTIFARNMLFTHDSLIIPAGDYVTAKG 60
DB 1 MYNNKLIVSSGSLSQGLIHDSBELFOHEKLTIFARNMLFTHDSLIIPAGDYVTAKG 60
QY 61 IDEVTVSRQDGSITAFPLNVCRRGKTLTVSEAGNAGFVCSYHWGSGNGSLQVPFE 120
DB 61 IDEVTVSRQDGSITAFPLNVCRRGKTLTVSEAGNAGFVCSYHWGSGNGSLQVPFE 120
QY 121 KOLYGEINMKKGLKEVAVRSYFHGTYGCFQDEAPPLADYLGDAANTYLEPMPHSGSL 180
DB 121 KOLYGEINMKKGLKEVAVRSYFHGTYGCFQDEAPPLADYLGDAANTYLEPMPHSGSL 180
QY 181 ELVGPQKVTIKANKKAPAFNFVGDIAVHWGTHASSLGSGSIFSSLAGNALPPEAGL 240
DB 181 ELVGPQKVTIKANKKAPAFNFVGDIAVHWGTHASSLGSGSIFSSLAGNALPPEAGL 240
QY 241 QMTSGSGMGVLMGVSQVSDULVELAFPGAKQBELNKETGCVARIYRSHLNCVT 300
DB 241 QMTSGSGMGVLMGVSQVSDULVELAFPGAKQBELNKETGCVARIYRSHLNCVT 300
QY 361 DDNDNMETASGNGKTKQSDSDLSNLGSDGVYGDIAVFGVVGKSLGETSYKGFPRAY 420
DB 361 DDNDNMETASGNGKTKQSDSDLSNLGSDGVYGDIAVFGVVGKSLGETSYKGFPRAY 420
QY 421 QNVVSSNNAFPEASSTWHTELTKTDDR 449
DB 421 QNVVSSNNAFPEASSTWHTELTKTDDR 449

```

RESULTS 9

```

US-09-843-250-59
; Sequence 59, Application US/09843250
; Publication No. US2003002235A1
; GENERAL INFORMATION:
; APPLICANT: Paralee, R.
; APPLICANT: Gibson, D.
; APPLICANT: Renick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US2003002235A1 naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875,064US2 US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; SOFTWARE: FactSeq for Windows Version 4.0
; SEQ ID NO 59
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURES:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:57.
US-09-843-250-59

```

```

Query Match 99.8%; Score 2403; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 2e-225;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 MYNNKLIVSSGSLSQGLIHDSBELFOHEKLTIFARNMLFTHDSLIIPAGDYVTAKG 60
DB 1 MYNNKLIVSSGSLSQGLIHDSBELFOHEKLTIFARNMLFTHDSLIIPAGDYVTAKG 60
QY 61 IDEVTVSRQDGSITAFPLNVCRRGKTLTVSEAGNAGFVCSYHWGSGNGSLQVPFE 120
DB 61 IDEVTVSRQDGSITAFPLNVCRRGKTLTVSEAGNAGFVCSYHWGSGNGSLQVPFE 120

```

```

QY 121 KOLYGEINMKKGLKEVAVRSYFHGTYGCFQDEAPPLADYLGDAANTYLEPMPHSGSL 180
DB 121 KOLYGEINMKKGLKEVAVRSYFHGTYGCFQDEAPPLADYLGDAANTYLEPMPHSGSL 180
QY 181 ELVGPQKVTIKANKKAPAFNFVGDIAVHWGTHASSLGSGSIFSSLAGNALPPEAGL 240
DB 181 ELVGPQKVTIKANKKAPAFNFVGDIAVHWGTHASSLGSGSIFSSLAGNALPPEAGL 240
QY 241 QMTSGSGMGVLMGVSQVSDULVELAFPGAKQBELNKETGCVARIYRSHLNCVT 300
DB 241 QMTSGSGMGVLMGVSQVSDULVELAFPGAKQBELNKETGCVARIYRSHLNCVT 300
QY 361 DDNDNMETASGNGKTKQSDSDLSNLGSDGVYGDIAVFGVVGKSLGETSYKGFPRAY 420
DB 361 DDNDNMETASGNGKTKQSDSDLSNLGSDGVYGDIAVFGVVGKSLGETSYKGFPRAY 420
QY 421 QNVVSSNNAFPEASSTWHTELTKTDDR 449
DB 421 QNVVSSNNAFPEASSTWHTELTKTDDR 449

```

RESULT 10

```

US-09-843-250-58
; Sequence 58, Application US/09843250
; Publication No. US2003002235A1
; GENERAL INFORMATION:
; APPLICANT: Paralee, R.
; APPLICANT: Gibson, D.
; APPLICANT: Renick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US2003002235A1 naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875,064US2 US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1998-10-26
; SOFTWARE: FactSeq for Windows Version 4.0
; SEQ ID NO 58
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURES:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:56.
US-09-843-250-58

```

```

Query Match 99.8%; Score 2402; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 2e-225;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 MYNNKLIVSSGSLSQGLIHDSBELFOHEKLTIFARNMLFTHDSLIIPAGDYVTAKG 60
DB 1 MYNNKLIVSSGSLSQGLIHDSBELFOHEKLTIFARNMLFTHDSLIIPAGDYVTAKG 60
QY 61 IDEVTVSRQDGSITAFPLNVCRRGKTLTVSEAGNAGFVCSYHWGSGNGSLQVPFE 120
DB 61 IDEVTVSRQDGSITAFPLNVCRRGKTLTVSEAGNAGFVCSYHWGSGNGSLQVPFE 120
QY 121 KOLYGEINMKKGLKEVAVRSYFHGTYGCFQDEAPPLADYLGDAANTYLEPMPHSGSL 180
DB 121 KOLYGEINMKKGLKEVAVRSYFHGTYGCFQDEAPPLADYLGDAANTYLEPMPHSGSL 180
QY 181 ELVGPQKVTIKANKKAPAFNFVGDIAVHWGTHASSLGSGSIFSSLAGNALPPEAGL 240
DB 181 ELVGPQKVTIKANKKAPAFNFVGDIAVHWGTHASSLGSGSIFSSLAGNALPPEAGL 240
QY 241 QMTSGSGMGVLMGVSQVSDULVELAFPGAKQBELNKETGCVARIYRSHLNCVT 300

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Db 241 QMTSKYSGMGVLMKZSGVSHADUVPFLMAFGAKQKQRLNEIGDVRARYRSHLCTV 300
QY 301 FPNNSMLTCSGVFKVWFIDANTTWTWYAVYKSHRQKQKRLASVORTLPAGFMES 360
Db 301 FPNNSMLTCSGVFKVWFIDANTTWTWYAVYKSHRQKQKRLASVORTLPAGFMES 360
Db 361 DDNNMETSQNGKQKQSDSLNLGFGEDVGDVYGVVGSALGETSYGKFPAY 420
QY 361 DDNNMETSQNGKQKQSDSLNLGFGEDVGDVYGVVGSALGETSYGKFPAY 420
Db 421 QMTSKYSGMGVLMKZSGVSHADUVPFLMAFGAKQKQRLNEIGDVRARYRSHLCTV 449
QY 421 QMTSKYSGMGVLMKZSGVSHADUVPFLMAFGAKQKQRLNEIGDVRARYRSHLCTV 449
Db 449 QMTSKYSGMGVLMKZSGVSHADUVPFLMAFGAKQKQRLNEIGDVRARYRSHLCTV 449

RESULT 12
US-09-843-250-35
; Sequence 16, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralels, P.
; APPLICANT: Remick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: naphthalene dioxygenase and methods for the
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 16
; LENGTH: 449
; TYPE: PRT
; FEATURES:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:16.
US-09-843-250-36

```

```

Query Match 99.7%; Score 2400; DB 11; Length 449;
Best Local Similarity 99.6%; Pred. No. 1:1e-225;
Matches 447; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 MYNNKLIVSSEGLSQHLLHGDBELFQHELTITFANMLFETHDSLIPAGDYVYAKG 60
Db 1 MYNNKLIVSSEGLSQHLLHGDBELFQHELTITFANMLFETHDSLIPAGDYVYAKG 60
QY 61 IDRVIVSNDGSIATFANVCHRGKTLVSRVAGNAGPFVCHGWGFGSNGELASVPE 120
Db 61 IDRVIVSNDGSIATFANVCHRGKTLVSRVAGNAGPFVCHGWGFGSNGELASVPE 120
QY 121 KDLVGSANLKLGLKAVARVESHPTGYGCPDQAPFLMDYLDGAANYLDFPMFGSGL 180
Db 121 KDLVGSANLKLGLKAVARVESHPTGYGCPDQAPFLMDYLDGAANYLDFPMFGSGL 180
QY 181 ELVPGPKVTKANAKAPENFVGDATVGHVTHASLSEGSIFSLAGNALPPFGAGL 240
Db 181 ELVPGPKVTKANAKAPENFVGDATVGHVTHASLSEGSIFSLAGNALPPFGAGL 240
QY 241 QMTSKYSGMGVLMKZSGVSHADUVPFLMAFGAKQKQRLNEIGDVRARYRSHLCTV 300
Db 241 QMTSKYSGMGVLMKZSGVSHADUVPFLMAFGAKQKQRLNEIGDVRARYRSHLCTV 300
QY 301 FPNNSMLTCSGVFKVWFIDANTTWTWYAVYKSHRQKQKRLASVORTLPAGFMES 360
Db 301 FPNNSMLTCSGVFKVWFIDANTTWTWYAVYKSHRQKQKRLASVORTLPAGFMES 360
QY 361 DDNNMETSQNGKQKQSDSLNLGFGEDVGDVYGVVGSALGETSYGKFPAY 420
Db 361 DDNNMETSQNGKQKQSDSLNLGFGEDVGDVYGVVGSALGETSYGKFPAY 420
QY 421 QMTSKYSGMGVLMKZSGVSHADUVPFLMAFGAKQKQRLNEIGDVRARYRSHLCTV 449
Db 421 QMTSKYSGMGVLMKZSGVSHADUVPFLMAFGAKQKQRLNEIGDVRARYRSHLCTV 449

```

RESULT 13
US-09-843-250-17

```

Db 361 DDNNMETSQNGKQKQSDSLNLGFGEDVGDVYGVVGSALGETSYGKFPAY 420
QY 421 QMTSKYSGMGVLMKZSGVSHADUVPFLMAFGAKQKQRLNEIGDVRARYRSHLCTV 449
Db 421 QMTSKYSGMGVLMKZSGVSHADUVPFLMAFGAKQKQRLNEIGDVRARYRSHLCTV 449

RESULT 12
US-09-843-250-32
; Sequence 32, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralels, P.
; APPLICANT: Remick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: naphthalene dioxygenase and methods for the
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 32
; LENGTH: 449
; TYPE: PRT
; FEATURES:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:27.
US-09-843-250-32

```

```

Query Match 99.7%; Score 2400; DB 11; Length 449;
Best Local Similarity 99.6%; Pred. No. 1:1e-225;
Matches 448; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MYNNKLIVSSEGLSQHLLHGDBELFQHELTITFANMLFETHDSLIPAGDYVYAKG 60
Db 1 MYNNKLIVSSEGLSQHLLHGDBELFQHELTITFANMLFETHDSLIPAGDYVYAKG 60
QY 61 IDRVIVSNDGSIATFANVCHRGKTLVSRVAGNAGPFVCHGWGFGSNGELASVPE 120
Db 61 IDRVIVSNDGSIATFANVCHRGKTLVSRVAGNAGPFVCHGWGFGSNGELASVPE 120
QY 121 KDLVGSANLKLGLKAVARVESHPTGYGCPDQAPFLMDYLDGAANYLDFPMFGSGL 180
Db 121 KDLVGSANLKLGLKAVARVESHPTGYGCPDQAPFLMDYLDGAANYLDFPMFGSGL 180
QY 181 ELVPGPKVTKANAKAPENFVGDATVGHVTHASLSEGSIFSLAGNALPPFGAGL 240
Db 181 ELVPGPKVTKANAKAPENFVGDATVGHVTHASLSEGSIFSLAGNALPPFGAGL 240
QY 241 QMTSKYSGMGVLMKZSGVSHADUVPFLMAFGAKQKQRLNEIGDVRARYRSHLCTV 300
Db 241 QMTSKYSGMGVLMKZSGVSHADUVPFLMAFGAKQKQRLNEIGDVRARYRSHLCTV 300
QY 301 FPNNSMLTCSGVFKVWFIDANTTWTWYAVYKSHRQKQKRLASVORTLPAGFMES 360
Db 301 FPNNSMLTCSGVFKVWFIDANTTWTWYAVYKSHRQKQKRLASVORTLPAGFMES 360
QY 361 DDNNMETSQNGKQKQSDSLNLGFGEDVGDVYGVVGSALGETSYGKFPAY 420
Db 361 DDNNMETSQNGKQKQSDSLNLGFGEDVGDVYGVVGSALGETSYGKFPAY 420
QY 421 QMTSKYSGMGVLMKZSGVSHADUVPFLMAFGAKQKQRLNEIGDVRARYRSHLCTV 449
Db 421 QMTSKYSGMGVLMKZSGVSHADUVPFLMAFGAKQKQRLNEIGDVRARYRSHLCTV 449

```

Sequence 17, Application US/09843250
Publication No. US20030022335A1

GENERAL INFORMATION:

APPLICANT: Parales, R.
INVENTOR: Parales, R.
APPLICANT: Rennick, S.

APPLICANT: Lee, K.
TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the

CURRENT APPLICATION NUMBER: US/09/843,250

CURRENT FILING DATE: 2001-04-26

PRIOR APPLICATION NUMBER: PCT/US99/25079

PRIOR FILING DATE: 1999-10-26 60/105,575

PRIOR FILING DATE: 1998-10-26

NUMBER OF SEQ ID NOS: 65

SOFTWARE: FastSeq for Windows Version 4.0

SEQ ID NO 17

CONSERVATIVE: 2; Mismatches: 1; Indels: 0; Gaps: 0;

ORGANISM: Artificial Sequence

FEATURES:

FEATURES: INFORMATION: A polypeptide encoded by SEQ ID NO:6.

US-09-843-250-17

Query Match 99.5%; Score 2395; DB 11; Length 449;

Best Local Similarity 99.3%; Pred. No. 9,6e-225;

Matches 416; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 1 MYNKNLIVSESGLSQHLHIGDELFQHELTIFANMLFTHDSLPAGDYVTAMG 60

Qy 1 MYNKNLIVSESGLSQHLHIGDELFQHELTIFANMLFTHDSLPAGDYVTAMG 60

Db 1 MYNKNLIVSESGLSQHLHIGDELFQHELTIFANMLFTHDSLPAGDYVTAMG 60

Qy 61 IDIVSVQRDGSITAPLVNCRHGKTLVSYEAGNAGKGVCSYHGWGFGSNGELQVPE 120

Db 61 IDIVSVQRDGSITAPLVNCRHGKTLVSYEAGNAGKGVCSYHGWGFGSNGELQVPE 120

Qy 121 KDYGSINLKKCLGLKGVARVESFHGFIYGCPOAPPLMDYLGDAWYLPFWKHSGGL 180

Db 121 KDYGSINLKKCLGLKGVARVESFHGFIYGCPOAPPLMDYLGDAWYLPFWKHSGGL 180

Qy 181 ELVGPQGVVTKANKKAPENFGVDAYHVGWTHASLSGSEIFSSLAGNALPPSGAGL 240

Db 181 ELVGPQGVVTKANKKAPENFGVDAYHVGWTHASLSGSEIFSSLAGNALPPSGAGL 240

Qy 241 QMTKSGSGVGLWDTGVSADVLPELMAFGQKQLNKKEIGDVARLYSHLNCTV 300

Db 241 QMTKSGSGVGLWDTGVSADVLPELMAFGQKQLNKKEIGDVARLYSHLNCTV 300

Qy 301 FPNNSMLTCGVFWKVPNDANTTWYTVVTEKMDPELKLADSVORTLGPAGWES 360

Db 301 FPNNSMLTCGVFWKVPNDANTTWYTVVTEKMDPELKLADSVORTLGPAGWES 360

Qy 361 DDNNWMTASGKKYCGSDLSNLGFGVDGVGVVGVKSGAIGETSYGCFYAY 420

Db 361 DDNNWMTASGKKYCGSDLSNLGFGVDGVGVVGVKSGAIGETSYGCFYAY 420

Qy 421 QARVSSNWAFENASSTWHTLTKTTDR 449

Db 421 QARVSSNWAFENASSTWHTLTKTTDR 449

RESULT 14

US-09-843-250-18

Sequence 18, Application US/09843250

Publication No. US20030022335A1

GENERAL INFORMATION:

APPLICANT: Parales, R.

INVENTOR: Parales, R.

APPLICANT: Rennick, S.

APPLICANT: Lee, K.

TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the

CURRENT APPLICATION NUMBER: US/09/843,250

CURRENT FILING DATE: 2001-04-26

PRIOR APPLICATION NUMBER: PCT/US99/25079

PRIOR FILING DATE: 1999-10-26 60/105,575

PRIOR FILING DATE: 1998-10-26

NUMBER OF SEQ ID NOS: 65

SOFTWARE: FastSeq for Windows Version 4.0

SEQ ID NO 17

CONSERVATIVE: 2; Mismatches: 1; Indels 0; Gaps 0;

ORGANISM: Artificial Sequence

FEATURES:

FEATURES: INFORMATION: A polypeptide encoded by SEQ ID NO:6.

US-09-843-250-17

Query Match 99.5%; Score 2395; DB 11; Length 449;

Best Local Similarity 99.3%; Pred. No. 9,6e-225;

Matches 416; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 1 MYNKNLIVSESGLSQHLHIGDELFQHELTIFANMLFTHDSLPAGDYVTAMG 60

Qy 1 MYNKNLIVSESGLSQHLHIGDELFQHELTIFANMLFTHDSLPAGDYVTAMG 60

Db 1 MYNKNLIVSESGLSQHLHIGDELFQHELTIFANMLFTHDSLPAGDYVTAMG 60

Qy 61 IDIVSVQRDGSITAPLVNCRHGKTLVSYEAGNAGKGVCSYHGWGFGSNGELQVPE 120

Db 61 IDIVSVQRDGSITAPLVNCRHGKTLVSYEAGNAGKGVCSYHGWGFGSNGELQVPE 120

Qy 121 KDYGSINLKKCLGLKGVARVESFHGFIYGCPOAPPLMDYLGDAWYLPFWKHSGGL 180

Db 121 KDYGSINLKKCLGLKGVARVESFHGFIYGCPOAPPLMDYLGDAWYLPFWKHSGGL 180

Qy 181 ELVGPQGVVTKANKKAPENFGVDAYHVGWTHASLSGSEIFSSLAGNALPPSGAGL 240

Db 181 ELVGPQGVVTKANKKAPENFGVDAYHVGWTHASLSGSEIFSSLAGNALPPSGAGL 240

Qy 241 QMTKSGSGVGLWDTGVSADVLPELMAFGQKQLNKKEIGDVARLYSHLNCTV 300

Db 241 QMTKSGSGVGLWDTGVSADVLPELMAFGQKQLNKKEIGDVARLYSHLNCTV 300

Qy 301 FPNNSMLTCGVFWKVPNDANTTWYTVVTEKMDPELKLADSVORTLGPAGWES 360

Db 301 FPNNSMLTCGVFWKVPNDANTTWYTVVTEKMDPELKLADSVORTLGPAGWES 360

Qy 361 DDNNWMTASGKKYCGSDLSNLGFGVDGVGVVGVKSGAIGETSYGCFYAY 420

Db 361 DDNNWMTASGKKYCGSDLSNLGFGVDGVGVVGVKSGAIGETSYGCFYAY 420

Sequence 17, Application US/09843250
Publication No. US20030022335A1

GENERAL INFORMATION:

APPLICANT: Parales, R.
INVENTOR: Parales, R.
APPLICANT: Rennick, S.

APPLICANT: Lee, K.
TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the

CURRENT APPLICATION NUMBER: US/09/843,250

CURRENT FILING DATE: 2001-04-26

PRIOR APPLICATION NUMBER: PCT/US99/25079

PRIOR FILING DATE: 1999-10-26 60/105,575

PRIOR FILING DATE: 1998-10-26

NUMBER OF SEQ ID NOS: 65

SOFTWARE: FastSeq for Windows Version 4.0

SEQ ID NO 17

CONSERVATIVE: 11; Mismatches: 4; Indels 0; Gaps 0;

ORGANISM: Artificial Sequence

FEATURES:

FEATURES: INFORMATION: A polypeptide encoded by SEQ ID NO:7.

US-09-843-250-18

Query Match 97.5%; Score 2347; DB 11; Length 449;

Best Local Similarity 96.7%; Pred. No. 4,6e-220;

Matches 434; Conservative 11; Mismatches 4; Indels 0; Gaps 0;

Db 1 MYNKNLIVSESGLSQHLHIGDELFQHELTIFANMLFTHDSLPAGDYVTAMG 60

Qy 1 MYNKNLIVSESGLSQHLHIGDELFQHELTIFANMLFTHDSLPAGDYVTAMG 60

Db 1 MYNKNLIVSESGLSQHLHIGDELFQHELTIFANMLFTHDSLPAGDYVTAMG 60

Qy 61 IDIVSVQRDGSITAPLVNCRHGKTLVSYEAGNAGKGVCSYHGWGFGSNGELQVPE 120

Db 61 IDIVSVQRDGSITAPLVNCRHGKTLVSYEAGNAGKGVCSYHGWGFGSNGELQVPE 120

Qy 121 KDYGSINLKKCLGLKGVARVESFHGFIYGCPOAPPLMDYLGDAWYLPFWKHSGGL 180

Db 121 KDYGSINLKKCLGLKGVARVESFHGFIYGCPOAPPLMDYLGDAWYLPFWKHSGGL 180

Qy 181 ELVGPQGVVTKANKKAPENFGVDAYHVGWTHASLSGSEIFSSLAGNALPPSGAGL 240

Db 181 ELVGPQGVVTKANKKAPENFGVDAYHVGWTHASLSGSEIFSSLAGNALPPSGAGL 240

Qy 241 QMTKSGSGVGLWDTGVSADVLPELMAFGQKQLNKKEIGDVARLYSHLNCTV 300

Db 241 QMTKSGSGVGLWDTGVSADVLPELMAFGQKQLNKKEIGDVARLYSHLNCTV 300

Qy 301 FPNNSMLTCGVFWKVPNDANTTWYTVVTEKMDPELKLADSVORTLGPAGWES 360

Db 301 FPNNSMLTCGVFWKVPNDANTTWYTVVTEKMDPELKLADSVORTLGPAGWES 360

Qy 361 DDNNWMTASGKKYCGSDLSNLGFGVDGVGVVGVKSGAIGETSYGCFYAY 420

Db 361 DDNNWMTASGKKYCGSDLSNLGFGVDGVGVVGVKSGAIGETSYGCFYAY 420

Qy 421 QARVSSNWAFENASSTWHTLTKTTDR 449

Db 421 QARVSSNWAFENASSTWHTLTKTTDR 449

RESULT 15

US-09-843-250-19

Sequence 19, Application US/09843250

Publication No. US20030022335A1

GENERAL INFORMATION:

APPLICANT: Parales, R.

INVENTOR: Parales, R.

APPLICANT: Rennick, S.

APPLICANT: Lee, K.

TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the

CURRENT APPLICATION NUMBER: US/09/843,250

CURRENT FILING DATE: 2001-04-26

PRIOR APPLICATION NUMBER: PCT/US99/25079

PRIOR FILING DATE: 1999-10-26 60/105,575

PRIOR FILING DATE: 1998-10-26

NUMBER OF SEQ ID NOS: 65

SOFTWARE: FastSeq for Windows Version 4.0

SEQ ID NO 19

CONSERVATIVE: 11; Mismatches: 4; Indels 0; Gaps 0;

ORGANISM: Artificial Sequence

FEATURES:

FEATURES: INFORMATION: A polypeptide encoded by SEQ ID NO:7.

US-09-843-250-18

Query Match 97.5%; Score 2347; DB 11; Length 449;

Best Local Similarity 96.7%; Pred. No. 4,6e-220;

Matches 434; Conservative 11; Mismatches 4; Indels 0; Gaps 0;

Db 1 MYNKNLIVSESGLSQHLHIGDELFQHELTIFANMLFTHDSLPAGDYVTAMG 60

Qy 1 MYNKNLIVSESGLSQHLHIGDELFQHELTIFANMLFTHDSLPAGDYVTAMG 60

Db 1 MYNKNLIVSESGLSQHLHIGDELFQHELTIFANMLFTHDSLPAGDYVTAMG 60

Qy 61 IDIVSVQRDGSITAPLVNCRHGKTLVSYEAGNAGKGVCSYHGWGFGSNGELQVPE 120

Db 61 IDIVSVQRDGSITAPLVNCRHGKTLVSYEAGNAGKGVCSYHGWGFGSNGELQVPE 120

Qy 121 KDYGSINLKKCLGLKGVARVESFHGFIYGCPOAPPLMDYLGDAWYLPFWKHSGGL 180

Db 121 KDYGSINLKKCLGLKGVARVESFHGFIYGCPOAPPLMDYLGDAWYLPFWKHSGGL 180

Qy 181 ELVGPQGVVTKANKKAPENFGVDAYHVGWTHASLSGSEIFSSLAGNALPPSGAGL 240

Db 181 ELVGPQGVVTKANKKAPENFGVDAYHVGWTHASLSGSEIFSSLAGNALPPSGAGL 240

Qy 241 QMTKSGSGVGLWDTGVSADVLPELMAFGQKQLNKKEIGDVARLYSHLNCTV 300

Db 241 QMTKSGSGVGLWDTGVSADVLPELMAFGQKQLNKKEIGDVARLYSHLNCTV 300

Qy 301 FPNNSMLTCGVFWKVPNDANTTWYTVVTEKMDPELKLADSVORTLGPAGWES 360

Db 301 FPNNSMLTCGVFWKVPNDANTTWYTVVTEKMDPELKLADSVORTLGPAGWES 360

Qy 361 DDNNWMTASGKKYCGSDLSNLGFGVDGVGVVGVKSGAIGETSYGCFYAY 420

Db 361 DDNNWMTASGKKYCGSDLSNLGFGVDGVGVVGVKSGAIGETSYGCFYAY 420

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/ LENGTH: 449
/ TYPE: PRT
/ ORIGIN: Artificial Sequence
/ OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.8.
/ NAME/KEY: SITE
/ LOCATION: (35)...(35)
/ OTHER INFORMATION: Aaa = any amino acid.
US-09-843-250-19

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Query Match          96.3%; Score 2319; DB 11; Length 449;
Best Local Similarity 95.5%; Pred. No. 2.5e-217;
Matches 425; Conservative 13; Mismatches 7; Indels 0; Gaps 0;

QY 1 MATYNNKIIVSESGLSQKLLTHGDEELPQHELKTIIFANNMLFTHDSLIPADQYVYVAKG 60
DB 1 MATYNNKIIVSESGLSQKLLTHGDEELPQHELKTIIFANNMLFTHDSLIPADQYVYVAKG 60

QY 61 IDRTIVSRQNDGSTRAFVNCVHRGKTLVSVYKGNKGFVCSYHGMFGSGNGLQSVPE 120
DB 61 IDRTIVSRQNDGSTRAFVNCVHRGKTLVSVYKGNKGFVCSYHGMFGSGNGLQSVPE 120

QY 121 KDLYGSLNKKCLGLKLVAVESFHGFVGGTQDAPFLMDYLGDAWYLEPFWKHGGCL 180
DB 121 KDLYGSLNKKCLGLKLVAVESFHGFVGGTQDAPFLMDYLGDAWYLEPFWKHGGCL 180

QY 181 ELVGFPGKVIIVANNKAPENFYGDVAVHGVTHASSLSGESIFSLAGNAALPPEAGCL 240
DB 181 ELVGFPGKVIIVANNKAPENFYGDVAVHGVTHASSLSGESIFSLAGNAALPPEAGCL 240

QY 241 QMTSKYSGSGMGLMDGYSVSHSADLVPELMAFGGNKQELNKEIGVARIYSHLACTV 300
DB 241 QMTSKYSGSGMGLMDGYSVSHSADLVPELMAFGGNKQELNKEIGVARIYSHLACTV 300

QY 301 FPNNSMTCSCZPKWNEIDANTETWYVAIVKQWPEKIKQELADSVORLPDAGWES 360
DB 301 FPNNSVATCSGVFKWNEIDANTETWYVAIVKQWPEKIKQELADSVORLPDAGWES 360

QY 361 DDNDNMETASQNGKVCORSDILANKGRPEVYGDVAVYGVKGAIGETSASTRAY 420
DB 361 DDNDNMETASQNGKVCORSDILANKGRPEVYGDVAVYGVKGAIGETSASTRAY 420

QY 421 QMTSKYSGMVFETSLSTNRLVNTDTR 449
DB 421 QMTSKYSGMVFETSLSTNRLVNTDTR 449

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Search completed: December 9, 2003, 16:09:35
 Job time : 23.1429 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 9, 2003, 15:44:13 , Search time 11.8571 Seconds
1602.205 Million cell updates/sec

Title: US-09-843-250-36

Search score: 2403
Sequence: 1 TAYNNLVNLSQSLH.....AEFASSTWTFLETTWDR 449

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Minimum Match 10%
Listing first 45 summaries

Database : Issued Patents AA:*

- 1: /csm2_e/prodata/1/aa/SA COMB pep.*
- 2: /csm2_e/prodata/1/aa/SA COMB pep.*
- 3: /csm2_e/prodata/1/aa/SA COMB pep.*
- 4: /csm2_e/prodata/1/aa/SA COMB pep.*
- 5: /csm2_e/prodata/1/aa/PTCTUS COMB pep.*
- 6: /csm2_e/prodata/1/aa/backfile1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result	Score	Query	Length	DB	ID	Description
1	409.5	17.0	463	4	US-09-252-991A-11367	Sequence 6157, A
2	407.5	16.9	494	4	US-09-328-352-6452	Sequence 3452, Ap
3	386	16	465	4	US-09-328-352-7248	Sequence 7248, Ap
4	386	16	465	4	US-09-328-352-7248	Sequence 7248, Ap
5	365	15.2	471	4	US-09-328-352-7581	Sequence 7581, A
6	349.5	14.5	425	4	US-09-252-991A-25088	Sequence 25088, A
7	287.96	12.3	444	4	US-09-252-991A-17164	Sequence 17164, A
8	237.5	9.9	529	4	US-09-252-991A-19027	Sequence 19027, Ap
9	237.5	9.9	529	4	US-09-252-991A-19027	Sequence 19027, Ap
10	224	9.3	446	4	US-09-004-3938-4	Sequence 4, Appl1
11	223	9.3	439	4	US-09-004-3938-2	Sequence 2, Appl1
12	194	7.7	35	3	US-08-810-009-19	Sequence 19, Appl1
13	194	7.7	35	3	US-08-810-009-19	Sequence 19, Appl1
14	168	7.0	35	3	US-08-810-009-20	Sequence 20, Appl1
15	143.5	6.0	629	4	US-09-252-991A-27100	Sequence 27100, A
16	128	5.3	392	4	US-09-328-352-6765	Sequence 6765, Ap
17	128	5.3	392	4	US-09-328-352-6765	Sequence 6765, Ap
18	112.5	4.7	379	3	US-09-076-9838-4	Sequence 4, Appl1
19	110	4.6	35	3	US-08-810-009-12	Sequence 12, Appl1
20	109	4.5	35	3	US-08-810-009-14	Sequence 14, Appl1
21	108	4.5	35	3	US-08-810-009-13	Sequence 13, Appl1
22	108	4.5	35	3	US-08-810-009-13	Sequence 13, Appl1
23	108	4.5	35	3	US-08-810-009-13	Sequence 13, Appl1
24	106	4.4	364	4	US-09-311-6269-8	Sequence 8, Appl1
25	106	4.4	364	4	US-09-311-6269-8	Sequence 8, Appl1
26	106	4.4	364	4	US-09-328-352-4956	Sequence 4956, Ap
27	103.5	4.3	432	3	US-09-809-913A-16	Sequence 16, Appl1

28	103.5	4.3	432	4	US-09-689-913A-15	Sequence 15, Appl1
29	103.5	4.3	432	4	US-09-689-913A-16	Sequence 16, Appl1
30	103.5	4.3	432	4	US-09-689-916A-15	Sequence 15, Appl1
31	103.5	4.3	649	3	US-08-809-326A-15	Sequence 15, Appl1
32	103.5	4.3	649	3	US-08-809-326A-15	Sequence 15, Appl1
33	103.5	4.3	649	4	US-09-689-913A-15	Sequence 15, Appl1
34	103.5	4.3	649	4	US-09-689-913A-15	Sequence 15, Appl1
35	103	4.3	35	3	US-08-810-009-11	Sequence 11, Appl1
36	102	4.2	35	3	US-08-810-009-8	Sequence 8, Appl1
37	102	4.2	35	3	US-08-810-009-10	Sequence 10, Appl1
38	101	4.2	17	3	US-08-810-009-44	Sequence 44, Appl1
39	101	4.2	17	3	US-08-810-009-45	Sequence 45, Appl1
40	100.5	4.2	363	4	US-09-328-352-5961	Sequence 5961, Ap
41	99.5	4.1	253	4	US-09-325-932A-57	Sequence 57, Appl1
42	99.5	4.1	253	4	US-09-325-932A-57	Sequence 57, Appl1
43	99	4.1	1132	4	US-09-158-452A-466	Sequence 466, App
44	97.5	4.0	395	4	US-09-252-991A-28371	Sequence 28371, A
45	95	3.9	17	3	US-08-810-009-46	Sequence 46, Appl1

ALIGNMENTS

RESULT 1
US-09-252-991A-11367
; Sequence 31367, Application US/09252991A
; Patent No. 6551795
; APPLICANT: Marc J. Rubinfeld et al.
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
; TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
; PRIORITY CLAIMS: 07/196,136 US/09/252,991A
; CURRENT FILING DATE: 1999-02-18
; PRIOR APPLICATION NUMBER: US 60/074,788
; PRIOR FILING DATE: 1998-02-18
; PRIOR FILING DATE: 1998-07-27
; NUMBER OF SEQ ID NOS: 33142
; SEQ ID NO 31367
; LENGTH: 463
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-11367

Query Match
Best Local Similarity: 37.0%; Score 409.5; DB 4; Length 463;
Matches 110; Conservative 69; Mismatches 149; Indels 51; Gaps 17;
QY 23 DEELQKHVYTRNRRVETFRUSLIPACQVYKAMIEIVUSQNGSHATANVR 82
DB 38 DPLRFLKMHVFGWVYLAHESQVGVNDYLTQIGROSVIARNDGQANINACS 97
QY 83 HRKMTLVNRCANMGVFSWHQVQNSGLQV---PFQDQVSGSLKNCGLQ---LKE 137
DB 98 HGMALCHGKSSSTTTCFHWTFNSKLKVDPAALG-YQGFN---CGSHDLTR 154
QY 138 VARVSEFSTVTCQDTPAPPLDQADANTYLFMFHGS-GEELGVGPKVYKANKR 196
DB 155 VRFELSTLGLNLFVRFVLAHLSGSAKLITVQVSPESVFGSSVYFGMK 214
QY 197 AAPNVFQDAVYH---WTHASS---LRSGHSTFSSLAGNALPPGAGLQ 241
DB 215 LTKN---GADQVTSVGHVNTATQCCQORDAOPDL---MSNAGNR---QGGFF 265
QY 242 TSGYSGKGVMDGVQSHVADLVY-LMAFGGAGKELNEIGDVAR-LYRSHANCT 299
DB 266 ---SFFGHGMLMRNAN---PEDPAPF---EREAELANDGEARNDMLNSHLC 313
QY 300 VPPNSNL---TCSGVKVPKFNPDANTVETVYVAIVKQWPKDRELKSLQVIGDAPGW 358
DB 314 LYPNVLMQCFQSRIARLAFSLVDRTETITTCIAPKSSAARRIRQVDFPNSQNA 373

QY 359 ESDDNNNETASNGKKYQ 377
 DB 374 TPDDLEHFRSCQGG--XQ 389

RESULT 2
 US-09-328-352-6452
 / Sequence 6452, Application US/09328352
 / Patent No. 6562958
 / GENERAL INFORMATION:
 / APPLICANT: Gacy L. Breton et al.
 / TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
 / FILE REFERENCE: GTC99-0318A US/09/328.352
 / CURRENT FILING DATE: 1998-06-04
 / NUMBER OF SEQ ID NOS: 8252
 / SEQ ID NO 1: 496
 / LENGTH: 496
 / TYPE: PRT
 / ORGANISM: Acinetobacter baumannii
 US-09-328-352-6452

Query Match
 Best Local Similarity 16.9%; Score 407.5; DB 4; Length 496;
 Matches 105; Conservative 59; Mismatches 146; Indels 25; Gaps 13;

QY 23 DEELFOHELKTIPAEWMLFTHDSLIIPACQDYTPAAMGLDEVISQNDGSRATFAN 79
 DB 73 DEALDLEWNTKIFEGWNTYLAHSGQIPNNNDYTYIGROQITIAANNGELANMAGS 82

QY 83 HEGKTLVSVAGNAQPCVCSYHGGSGNGELASFPKKOL VGSLLNK-CUGKHEAR 140
 DB 133 HEGALQRYTSGNATTCFPHGATPNSGGLKAYDPTDAGSDCFNAGSHDLAKVAR 192

QY 141 VESFKGTGTCGDEAPADYLDGADAMYLEPFRUS-GELHVGPKVIVANRARA 199
 DB 193 FSYGKGLFSLNPDPVELEHLEFETKIDMTVQSEHGLLEVRSGSTVYEGWMLTA 252

QY 200 INYGVADKNG--NTHASLGRSGSTFSLAONALPPFGA-GLMNSKYQ--SGMYLT 253
 DB 253 NN-GLQHTVSAMVNTATYQHRK--TQADNTFAMSGNSKQGGSGTGFENGML 309

QY 254 WQYGVSGADILVELLAPMAGQKRLKEIGNEVAR--LYPSHMLCTVFNNSMLCSG 311
 DB 310 WYQANLEDRNF-----KADETKYGKNSKMLERSR-NCLYINVLMDQGT 360

QY 312 VYNNPMDNTMTWTATVVK-DMPEDAKRH 344
 DB 361 SQIVRLPRLSVNTEVTYIAPGAPAPADAMHI 395

RESULT 3
 US-09-328-352-7248
 / Sequence 7248, Application US/09328352
 / Patent No. 6562958
 / GENERAL INFORMATION:
 / APPLICANT: Breton et al.
 / TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
 / FILE REFERENCE: GTC99-0318A US/09/328.352
 / CURRENT FILING DATE: 1998-06-04
 / NUMBER OF SEQ ID NOS: 8252
 / SEQ ID NO 7248
 / LENGTH: 445
 / TYPE: PRT
 / ORGANISM: Acinetobacter baumannii
 US-09-328-352-7248

Query Match
 Best Local Similarity 26.1%; Score 386; DB 4; Length 445;
 Matches 124; Conservative 66; Mismatches 164; Indels 88; Gaps 21;

QY 20 INHDELFQHELKTIPAEWMLFTHDSLIIPACQDYTPAAMGLDEVISQNDGSRATFAN 79
 DB 47 LYKDSRIPDEMEKIFTSYTWVWASBIPGGSYKTINGQPPVTVDRCKKCVHLLN 106

QY 80 VCHREKTLVSVAGNAQPCVCSYHGGSGNGELASFPKKOLVGSLLNKCKGLKEVA 139
 DB 107 RCHRAHLYVCGEKKKGNFSCYHGGSGYALDGLGVP-SPESYGCGLDLSLFLSL- 164

QY 140 FUSSEHIGHTVCGDEAPADYLDGADAMYLEPFRUSG--LELWPK 192
 DB 165 RYEVYNGMIFASFEEDQFEEELGCPAKMIDLPNAGQAGYFIKVLGEHRPFRQ-- 219

QY 193 ANKHAPEANVGVNTHGVHTHRAISR-----GESIFSLAGNALPFPFGALQMTSYGS 248
 DB 220 -NWKQLSN-ITTAHFELVFNKSFSSVDEKTELEN-----FEN 257

QY 249 GMVLYADQYGVSHSADILVELLAPMAGQKRLKEIGNEVAR--NRPDNRKRLA 345
 DB 258 QCGFVLDLGNSSWMLFELVLEEDLWERPTQERFEDLAQSDGSEELVGRVIVA 317

QY 294 ---SHUNCTVFNNSMLCTV--GVFKVNPRTDANTTWTATVVKD---NPDNRKRLA 345
 DB 318 VGGSGFNLPNLF--TACSAYFRLVQLPISVATETL HSIYVINGQEQIINQVRLAH 373

QY 346 DESVQRTIDGAPGSESDNDNTASQNGKYQSGRSDLSLNGFEDGVADYVGVG-- 404
 DB 374 EHFQ--DPFGGTGTFDSAMERV--QEGN-AQNDLWLMHREL-----PQEVKT 418

QY 405 ----KSAI-GETSYGTYRATQ 421
 DB 419 EQLGLSVSAYETGCGAAYQOKK 440

RESULT 4
 US-09-252-991A-31385
 / Sequence 31385, Application US/09252991A
 / Patent No. 6551795
 / GENERAL INFORMATION:
 / APPLICANT: Marc J. Rubenfield et al.
 / TITLE OF INVENTION: ARBINOIC ACID SEQUENCES RELATING TO PSEUDOMONAS
 / FILE REFERENCE: 107196.136
 / CURRENT APPLICATION NUMBER: US/09/252,991A
 / PRIOR APPLICATION NUMBER: US 60/074,788
 / PRIOR FILING DATE: 1998-02-18
 / PRIOR APPLICATION NUMBER: US 60/094,190
 / PRIOR FILING DATE: 1998-07-27
 / NUMBER OF SEQ ID NOS: 33142
 / SEQ ID NO 31385
 / LENGTH: 466
 / TYPE: PRT
 / ORGANISM: Pseudomonas aeruginosa
 US-09-252-991A-31385

Query Match
 Best Local Similarity 26.3%; Score 386; DB 4; Length 466;
 Matches 117; Conservative 71; Mismatches 157; Indels 100; Gaps 18;

QY 23 DEELFOHELKTIPAEWMLFTHDSLIIPACQDYTPAAMGLDEVISQNDGSRATFAN 79
 DB 39 EPELPLMELTIFKNTYITACHESELAPHPDPTLEAGROPLIVTHQNGQALVDAC 98

QY 83 HEGKTLVSVAGNAQPCVCSYHGGSGNGELASV--PFEKOLVGSLLNKCKGLKEVA 140
 DB 91 HEGATVYGVKGGCTGTCTPHAMCTKXDRGVKVAQGE---YFEGDPAKTRGLK-AR 154

QY 141 VESFPHQIFGQDEA-PPHLYADLGDAMYLEPFRH--SGLELVGPPKGVYKANRKA 197
 DB 155 IQSTRGFFVSLVDVAGBDLVDFLGDARVFLDMVAGSGSELELVKGTSTVYEGNKL 214

QY 198 PARNVQGDAXHGVHTHASSLGRSGSTFSLAONALPFPFGALQMT---SKYSGSGVL- 253


```

1 APPLICANT: Rathanabapathi, Bala
2 APPLICANT: Rathanabapathi, Bala
3 APPLICANT: Burnet, Michael
4 TITLE OF INVENTION: Plasmid Transformed Therewith
5 FILE REFERENCE: UP-162
6 CURRENT APPLICATION NUMBER: US/09/004,393B
7 PRIORITY DATE: 1998-01-08
8 PRIOR FILING DATE: 1997-04-06
9 NUMBER OF SEQ ID NOS: 6
10 SOFTWARE: 4
11 SEQUENCE: 4
12 LENGTH: 446
13 TYPE: PRT
14 ORGANISM: Beta vulgaris
15 US-09-004-393B-4

Query Match
Best Local Similarity 9.3%; Score 224; DB 4; Length 446;
Matches 58; Conservative 37; Mismatches 97; Indels 20; Gaps 6;

QY 11 SSGLSGHLHGGDELPQHLACTFARNWLLTUSLIPACQGVYFAMGIDIVKSON 70
DB 99 EDALFPTSTYEPAYFDEHLELTPYKGVAGVSQVKEKQYFSGSLANVYLSGOG 158
QY 71 DSGIATLNVCHRCCTLVYVAGNAGKGVCHGCGSGHSGEQLGVFFULYGRJAK 130
DB 159 QGELAHNVCHTHA-STLACSGKSGCVCFHGMVYGLSLAKA-SKATETOLDP 215
QY 131 KGLGKETAIVRSHFQPTVCTGDERPLAD-----YLGDA-----AWYLEWYFHSGLF 181
DB 216 KSLGLATL-KVAHMGFFLISLSDANADVTGEMTIGSAGNVAHAFDNLKFTHSE 274
QY 182 LVGPFGKVIKANKAPAMFVGDVYHGVTH 213
DB 275 F-----FMECNWKFVCDNYLDSVHYVYAH 299

RESULT 11
US-09-004-393B-2
; Sequence 2, Application US/0904393B
; Patent No. 6310271
; APPLICANT: Rathanabapathi, Bala
; APPLICANT: Burnet, Michael
; TITLE OF INVENTION: Polynucleotides Encoding Choline Monooxygenase and Plasmid Transformed Therewith
; FILE REFERENCE: UP-162
; CURRENT APPLICATION NUMBER: US/09/004,393B
; CURRENT FILING DATE: 1998-01-08
; PRIOR FILING DATE: 1997-04-06
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: 4
; SEQ ID NO 2
; TYPE: PRT
; ORGANISM: Spinacia oleracea
US-09-004-393B-2

Query Match
Best Local Similarity 9.3%; Score 223; DB 4; Length 439;
Matches 58; Conservative 36; Mismatches 83; Indels 14; Gaps 7;

QY 27 FQHLKTVRASKLFTFTHSLIPACQGVYFAMGIDIVYKRMDSYAFANCTGRCK 86
DB 108 VSEHLELTPYKGVAGVAGSQLEKPEQYFSGSLGVYLSVSGEKNVAFNVTCTHA- 166
QY 87 TLVSVGNMGKPVCSHGVGSGEQLSVPPEDHVGESLNNKCLAEKAVRVSFEG 146
DB 167 SILACSGKSGCVCFHGMVYGLSLAKA-SKATETOLDP-KVAWVFP 223

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QY 147 FTYGCFDQAPPLAD-----YLGDAWYLEWYFHS--GSELVGPGKVIKANKAPAB 200
DB 224 FVLISLDSLEGGDQGVYFAMGTSA-----EDVKAHAFDSLOVTHSEFPMESNKKTFSD 279
QY 201 NFVGDVYHGVTH 213
DB 280 NYLDSVHYVYAH 292

RESULT 12
US-08-810-009-19
; Sequence 19, Application US/08810009
; Patent No. 6211437
; APPLICANT: Briggs, Steven P.
; APPLICANT: John, Gurmukh S.
; APPLICANT: Gray, John
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING CHILL DEATH AND DISEASE RESISTANCE IN PLANTS
; NUMBER OF SEQUENCES: 65
; CORRESPONDENCE ADDRESS: BRIGGS, STEVEN, PARK & GIBSON STREET, P.O. BOX 34009, CHARLOTTE, NC 28223, USA
; STATE: NC, 6211437th Carolina
; COUNTRY: USA
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: IBM PC compatible
; SOFTWARE: PASCALIN RELEASE #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/810,009
; FILING DATE: 04-MAR-1997
; CLASSIFICATION: C12N 01/00
; ATTORNEY/AGENT INFORMATION:
; NAME: Spruill, W. Murray
; REGISTRATION NUMBER: 32,943
; ADDRESS: 10000 WOODBURN DRIVE, SUITE 710-4, FARMERSBURGH, NY 11735-4000
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 919-881-3140
; TELEFAX: 919-881-3175
; INFORMATION:
; SEQ ID NO: 19;
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-810-009-19

Query Match
Best Local Similarity 94.3%; Score 185; DB 3; Length 35;
Matches 33; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 79 NVCNCRGKTVSVAGNAGKPVCSHGVGSGEKNK 113
DB 1 NVCNCRGKTVSVAGNAGKPVCSHGVGSGEKNK 35

RESULT 13
US-08-810-009-20
; Sequence 20, Application US/08810009
; Patent No. 6211437
; APPLICANT: Briggs, Steven P.
; APPLICANT: John, Gurmukh S.
; APPLICANT: Gray, John
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING CHILL DEATH AND DISEASE RESISTANCE IN PLANTS

```

NUMBER OF SEQUENCES: 65
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: J. BELL, SELTZER, PARK & GIBSON
 CITY: Charlotte
 STATE: No. 6211437ch Carolina
 COUNTRY: USA
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 OPERATING SYSTEM: IBM PC compatible
 CURRENT APPLICATION DATA: Version #1.0, Version #1.30
 APPLICATION NUMBER: US/08/810,009
 FILING DATE: 04-MAR-1997
 ATTORNEY/AGENT INFORMATION:
 NAME: Spruill, W. Murray
 REGISTRATION NUMBER: 32,943
 TELEPHONE: 919-881-3140
 TELEFAX: 919-881-3175
 INVENTOR: SPRUILL, W. MURRAY
 SEQUENCE CHARACTERISTICS:
 LENGTH: 35 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 QUERY MATCH
 Best Local Similarity 85.78; Pred. No. 3; Length 35;
 Matches 30; Conservative 2; Mismatches 0; Gaps 0;
 Indels 0;
 QY 79 NVCHRGKTVLTVAGNAGVGVGHGFGSGNSK 113
 DB 1 NVCHRGKTVLTVAGNAGVGVGHGFGSGNSK 35
 RESULT 14
 US-08-810-009-21
 Sequence 21, Application US/08810009
 Patent No. 6211437
 APPLICANT: Briggs, Steven P.
 APPLICANT: Johal, Gurmukh S.
 APPLICANT: Gray, John
 TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROLLING
 NUMBER OF SEQUENCES: 65
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: J. BELL, SELTZER, PARK & GIBSON
 CITY: Charlotte
 STATE: No. 6211437th Carolina
 COUNTRY: USA
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 OPERATING SYSTEM: PC-DOS/MS-DOS
 CURRENT APPLICATION DATA: Version #1.0, Version #1.30
 APPLICATION NUMBER: US/08/810,009
 FILING DATE: 04-MAR-1997
 ATTORNEY/AGENT INFORMATION:
 NAME: Spruill, W. Murray
 REGISTRATION NUMBER: 32,943

REFERENCE/POCUNT NUMBER: 5718-4
 TELEPHONE: 919-881-3140
 TELEFAX: 919-881-3175
 INFORMATION FOR SEQ ID NO: 21:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 35 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-810-009-21
 Query Match
 Best Local Similarity 80.04; Pred. No. 3; Length 35;
 Matches 28; Conservative 3; Mismatches 4; Indels 0; Gaps 0;
 QY 79 NVCHRGKTVLTVAGNAGVGVGHGFGSGNSK 113
 DB 1 NVCHRGKTVLTVAGNAGVGVGHGFGSGNSK 35
 RESULT 15
 US-09-252-991A-27100
 Sequence 27100, Application US/09252991A
 Patent No. 6551795
 APPLICANT: Marc J. Rubenfield et al.
 TITLE OF INVENTION: ARBUSCULOSIS FOR DIAGNOSTICS AND THERAPEUTICS
 CURRENT APPLICATION NUMBER: US/09/252,991A
 PRIOR FILING DATE: 1999-02-18
 PRIOR APPLICATION NUMBER: US 60/074,788
 PRIOR FILING DATE: 1998-02-18
 PRIOR APPLICATION NUMBER: US 60/094,190
 PRIOR FILING DATE: 1998-07-27
 NUMBER OF SEQ ID NOS: 33142
 SEQ ID NO 27100
 TYPE: PRT
 ORGANISM: Pseudomonas aeruginosa
 US-09-252-991A-27100
 Query Match
 Best Local Similarity 6.08; Score 143.5; DB 4; Length 629;
 Matches 65; Conservative 41; Mismatches 103; Indels 59; Gaps 13;
 QY 4 NKLVIVSGSLGKSLHLL--VGRSELFOHLEKTIIPARM--HLEITDSGLIPACDYTPAKN 59
 DB 247 SNRIPLVQKRLITFSLFVAVYGRCK--TVSVIRAGAKGTFCSHNGSGSMBLOS 117
 QY 60 GDEIVYVSGDSTFSLFVAVYGRCK--TVSVIRAGAKGTFCSHNGSGSMBLOS 117
 DB 304 GDEIVYVSGDSTFSLFVAVYGRCK--TVSVIRAGAKGTFCSHNGSGSMBLOS 117
 QY 118 PFESDLVSGSLKCKGLKLEVAR--YESIFGTY---GCFQDAFPLMDYGDAAWYFZ 172
 DB 361 P-----GQVGFSGFGRFVRGRGVVWVWGAEQDAALIFEL---EWAESP 407
 QY 173 MFPIGSGSLGVGFQPKVITANVAKAPNFVGDVHVGVTHASSI-----R 218
 DB 408 DWAYGGSL-----YHICDYRLAMIN--DTHETVYRNSIQQEIDBAAPTHVE 458
 QY 219 SGGSTFSSSLAQNALPVP-----SEAGL 240
 DB 459 GQVITLTHMKNVMAFFPFGVAGKGL 486
 Search completed: December 9, 2003, 15:45:56
 Job time : 13 secs


```

QY 121 KDLYGSLANKKCLGLAEVAEVESFGPTGCTDPAAPMDYLDGDAAYLPEMFHSGGL 180
DB 121 KDLYGSLANKKCLGLAEVAEVESFGPTGCTDPAAPMDYLDGDAAYLPEMFHSGGL 180
QY 181 ELVGPQKVIYKAWKAPENYVGDYHVGWTHASLSGSESIFFSLAGNAALPPEGAGL 240
DB 181 ELVGPQKVIYKAWKAPENYVGDYHVGWTHASLSGSESIFFSLAGNAALPPEGAGL 240
QY 241 QMYSKYSGSGWGLWDCYGSADLAVPELAFQGLKQERLKEIGDVARYTSHLNTCTY 300
DB 241 QMYSKYSGSGWGLWDCYGSADLAVPELAFQGLKQERLKEIGDVARYTSHLNTCTY 300
QY 301 FPNNSMTCSGVFKWNPIDANTTWTVAITVKNQWPELKLADSVQRTVGPAGFWS 360
DB 301 FPNNSMTCSGVFKWNPIDANTTWTVAITVKNQWPELKLADSVQRTVGPAGFWS 360
QY 361 DDNNMETASQNGKATGSESDLSNGLGSDYGVYATVGVVKGKALGETSYGTFRAY 420
DB 361 DDNNMETASQNGKATGSESDLSNGLGSDYGVYATVGVVKGKALGETSYGTFRAY 420
QY 421 QMYSKYSGSGWGLWDCYGSADLAVPELAFQGLKQERLKEIGDVARYTSHLNTCTY 449
DB 421 QMYSKYSGSGWGLWDCYGSADLAVPELAFQGLKQERLKEIGDVARYTSHLNTCTY 449

```

RESULT 2

```

US-09-843-250-2
; Sequence 2, Application US/09843250
; Publication No. US2003002235A1
; GENERAL INFORMATION:
; APPLICANT: Paralel, R.
; APPLICANT: Gibson, D.
; APPLICANT: Resnick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US2003002235A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875 006US2
; CURRENT APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1998-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.1.
US-09-843-250-14

```

Query Match 100.0%; Score 2407; DB 11; Length 449;

Best Local Similarity 99.0%; Pred. No. 2.4e-226; Matches 448; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```

QY 1 MNTNKLIVSGLSGQLHGHSELPFOHELKTFAFNMLFTHDSLIPAGDYVANG 60
DB 1 MNTNKLIVSGLSGQLHGHSELPFOHELKTFAFNMLFTHDSLIPAGDYVANG 60
QY 61 IDIVTVSQNGSIFATFANVCHRGKTLVVEAGNAGVFCSTHWGCSNGSLQVFFE 120
DB 61 IDIVTVSQNGSIFATFANVCHRGKTLVVEAGNAGVFCSTHWGCSNGSLQVFFE 120
QY 121 KDLYGSLANKKCLGLAEVAEVESFGPTGCTDPAAPMDYLDGDAAYLPEMFHSGGL 180
DB 121 KDLYGSLANKKCLGLAEVAEVESFGPTGCTDPAAPMDYLDGDAAYLPEMFHSGGL 180
QY 181 ELVGPQKVIYKAWKAPENYVGDYHVGWTHASLSGSESIFFSLAGNAALPPEGAGL 240
DB 181 ELVGPQKVIYKAWKAPENYVGDYHVGWTHASLSGSESIFFSLAGNAALPPEGAGL 240
QY 241 QMYSKYSGSGWGLWDCYGSADLAVPELAFQGLKQERLKEIGDVARYTSHLNTCTY 300
DB 241 QMYSKYSGSGWGLWDCYGSADLAVPELAFQGLKQERLKEIGDVARYTSHLNTCTY 300
QY 301 FPNNSMTCSGVFKWNPIDANTTWTVAITVKNQWPELKLADSVQRTVGPAGFWS 360
DB 301 FPNNSMTCSGVFKWNPIDANTTWTVAITVKNQWPELKLADSVQRTVGPAGFWS 360
QY 361 DDNNMETASQNGKATGSESDLSNGLGSDYGVYATVGVVKGKALGETSYGTFRAY 420

```

Db	361	DDNDNWTASGNGKKYQSRSDLLSNLGFEDVYGVDAVPGVVGKSAIGETSYRGFEAY
Qy	421	QAVVSSSNWAEPEHASSMTSLTKVTR
Db	421	QAVVSSSNWAEPEHASSMTSLTKVTR

```

RESULT 4
US-09-843-250-15
Sequence ID NO: Application US/09841250
Number of Sequences: 1
GENERAL INFORMATION:
APPLICANT: Paralee, R.
APPLICANT: Gibson, D.
INVENTOR: Paralee, S.
APPLICANT: Paralee, S.
TITLE OF INVENTION: No. U82003022335A)le naphthalene dioxynase and methods for the
FILE REFERENCE: 875.060US2
CURRENT PILLING DATE: US/09/843, 250
CURRENT FILING DATE: 2009-08-10
PRIOR APPLICATION NUMBER: ECTYU99/25079
PRIOR FILING DATE: 1999-10-26
PRIOR APPLICATION NUMBER: US 60/105, 575
PRIOR FILING DATE: 1999-10-26
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 15
SEQ ID NO 16
SEQ ID NO 17
TYPE: PAT
ORGANISM: Artificial Sequence
FEATURES:
SEQUENCE ORGANIZATION: A Polypeptide encoded by SEQ ID NO:4.
US-09-843-250-15

```

Query Match	100.0%	Score 2407	DB 11	Length 449
Beat Local Similarity	99.8%	Ned. No. 2.4e-226		
Matches	41	Mismatches	0	Indels
	Conservative	1		Gaps
QY	1	MYNYKILVSESSGSKHLLHMLHSLFQHELEANTFANNMLFLHDSLTPALDQVYVYVANG	60	
DB	1	MYNYKILVSESSGSKHLLHMLHSLFQHELEANTFANNMLFLHDSLTPALDQVYVYVANG	60	
QY	61	LDIVTVISVDFQDSIRAFELNVCYHCHQKATLVYHNAQNKVTCVSHGKSGKGVKSHVGVPE	120	
DB	61	LDIVTVISVDFQDSIRAFELNVCYHCHQKATLVYHNAQNKVTCVSHGKSGKGVKSHVGVPE	120	
QY	121	QVGLVSGSGLKGLKLVNVAIVFHSYFHGTCYQDPAADLPADLTADAMTLFNPFGSGGL	180	
DB	121	QVGLVSGSGLKGLKLVNVAIVFHSYFHGTCYQDPAADLPADLTADAMTLFNPFGSGGL	180	
QY	181	ELVGHGKRVYKANKVADPAPFVGDYVHGVCHASSLSESSSTFSSLAGMAALPPFQGL	240	
DB	181	ELVGHGKRVYKANKVADPAPFVGDYVHGVCHASSLSESSSTFSSLAGMAALPPFQGL	240	
QY	241	QMTSGKSGMGVLMGQTSVGSASDVPFLPMLGAKGAKERLAKETGVPAATVYSHLACTV	300	
DB	241	QMTSGKSGMGVLMGQTSVGSASDVPFLPMLGAKGAKERLAKETGVPAATVYSHLACTV	300	
QY	301	FNPNMSLSCGVGVKVPMPIDMNTVYVTVVYVYKELMDKELASLTORTTGVGAFWGES	360	
DB	301	FNPNMSLSCGVGVKVPMPIDMNTVYVTVVYVYKELMDKELASLTORTTGVGAFWGES	360	
QY	361	DNDNMETASQKQKTSQSDSLSNLAFQGVGVGVGVGVGVGVGVGVGVGVGVGVGVGV	420	
DB	361	DNDNMETASQKQKTSQSDSLSNLAFQGVGVGVGVGVGVGVGVGVGVGVGVGVGVGV	420	
QY	421	QARVSSSSNMAFPHASSTVATFLVLTACTOR	449	
DB	421	QARVSSSSNMAFPHASSTVATFLVLTACTOR	449	

RESULT 5

```

US-08-843-250-35
: Sequence 35, Application US/09843250
: Publication No. US20030022335A1
: Generation No. US20030022335A1
: REGISTRAR: Paralels, R.
: APPLICANT: Paralels, R.
: APPLICANT: Gibsen, D.
: APPLICANT: Reenick, S.
: TITLE OF INVENTION: NO. US20030022335A1 naphthalene dioxygenase and methods for the
: FILE INFRINGEMENT: 875.06032
: CURRENT APPLICATION NUMBER: US/09/843,250..
: CURRENT FILING DATE: 2001-04-26
: PRIOR FILING DATE: 1999-10-26
: PRIOR APPLICATION NUMBER: US 60/105,575
: PRIOR FILING DATE: 1998-10-26
: NUMBER OF SEQ ID NOS: 65
: SEQ ID NO 1, created for Windows Version 4.0
: SEQ ID NO 35
: LENGTH: 449
: TYPE: PRT
: ORGANISM: Artificial Sequence
: FEATURES:
: OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.30.
US-08-843-250-35

```

Query Match	99.9%	Score 2406	DB 11	Length 449
Beet Local	99.8%	Pred. No. 3226		
Matches 449	Conservative 1	W/Matches 0	Indels 0	Gaps 0
QY	1	MAYNKNIIVSSGSLQHLIHDESEFQHEBLKTIIPANMFLUTHDLSIPARDQVYVTAAG 60		
DB	1	MAYNKNIIVSSGSLQHLIHDESEFQHEBLKTIIPANMFLUTHDLSIPARDQVYVTAAG 60		
QY	61	IDEVTVSRQNGDSIFAPLNCVRRGTLNLSVAGNAGKVCSTGEMFGSGNSLSVPPF 120		
DB	61	IDEVTVSRQNGDSIFAPLNCVRRGTLNLSVAGNAGKVCSTGEMFGSGNSLSVPPF 120		
QY	121	KGKSLAKKCLIKETAVESVPEFVYGCFOQAPDPLVQIDGMFLKPMFGKSG 180		
DB	121	KDLGKSLAKKCLIKETAVESVPEFVYGCFOQAPDPLVQIDGMFLKPMFGKSG 180		
QY	181	ELVQPKKVKVIAKVAIPANVFDGAVNMTASIGRSGISFSSGLNALLPFGKGL 240		
DB	181	ELVQPKKVKVIAKVAIPANVFDGAVNMTASIGRSGISFSSGLNALLPFGKGL 240		
QY	241	QFTSKYSGMCTWIDGYSVGHNDLPELMAFGAGAKQLNKELGDVARTYRSHLCTV 300		
DB	241	QFTSKYSGMCTWIDGYSVGHNDLPELMAFGAGAKQLNKELGDVARTYRSHLCTV 300		
QY	301	FPNNSMTICSGVFWKPIIDMTTEWTVATVSKOMKELKELASVORTIGPAGFWES 360		
DB	301	FPNNSMTICSGVFWKPIIDMTTEWTVATVSKOMKELKELASVORTIGPAGFWES 360		
QY	361	DINDNMETASQNKCTQSGSDLLSGEDVDYGDVATVCFVSKSAGTSGVSTRAY 420		
DB	361	DINDNMETASQNKCTQSGSDLLSGEDVDYGDVATVCFVSKSAGTSGVSTRAY 420		
QY	421	QARVSSNMAFSSHASTWETLSKLTDR 449		
DB	421	QARVSSNMAFSSHASTWETLSKLTDR 449		

RESULT 6
US-09-843-250-26
; Sequence 26, Application US/09843250
; Publication No. US2003002235A1
; GENERAL INFORMATION:
; APPLICANT: Pavales, R.
; APPLICANT: Gibson, D.
; APPLICANT: Resnick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US2003002235

```

; FILE REFERENCE: 875.00KUB2
; CURRENT APPLICATION NUMBER: US/09/843.250
; PUBLICATION NO. US20030022335A1
; PRIOR FILING DATE: 2001-04-26
; PRIOR FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; SUPPLEMENTARY INFORMATION: A polypeptide encoded by SEQ ID NO:28.
; SEQ ID NO 26
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Pseudomonas sp.
US-09-843-250-26

```

```

Query Match 99.8%; Score 2404; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 5.9e-226;
Matches 449; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MYNNKILVSSGSLGQHLHGDELPQHELTIPANMLPFTHDSILPAGDYVTAAG 60
DB 1 MYNNKILVSSGSLGQHLHGDELPQHELTIPANMLPFTHDSILPAGDYVTAAG 60
QY 61 IDIVIVSRQDSIFAPLVNCHUKTKLASVEGNANGFVCTHGVGSGNGSLQVPE 120
DB 61 IDIVIVSRQDSIFAPLVNCHUKTKLASVEGNANGFVCTHGVGSGNGSLQVPE 120
QY 121 KDLVGSINKKCLGLAVARVESFGTITGQDAPPLMDLGDAAWLEPWFHSGSL 180
DB 121 KDLVGSINKKCLGLAVARVESFGTITGQDAPPLMDLGDAAWLEPWFHSGSL 180
QY 181 ELVGPQGVVIANMVAPEAFNFGDVAHYGVGHASSLSGSSIFSSLGNAALPPEAGL 240
DB 181 ELVGPQGVVIANMVAPEAFNFGDVAHYGVGHASSLSGSSIFSSLGNAALPPEAGL 240
QY 241 QMTSKYSGWGLMDQSGVSHSDLVPELMACGACQVGRLEKADLVGVARTVSHLNCTV 300
DB 241 QMTSKYSGWGLMDQSGVSHSDLVPELMACGACQVGRLEKADLVGVARTVSHLNCTV 300
QY 301 PPNNSMLTCSGVFVKNPDIANTTWTYAIYVKNMDPEDLGRLADSVGTGPAQFWS 360
DB 301 PPNNSMLTCSGVFVKNPDIANTTWTYAIYVKNMDPEDLGRLADSVGTGPAQFWS 360
QY 361 DNNMGTASQNGKATQSDLSNLGFGVDVAVGVGVGSAIGETSYGTFRAY 420
DB 361 DNNMGTASQNGKATQSDLSNLGFGVDVAVGVGVGSAIGETSYGTFRAY 420
QY 421 QARVSSNNWAFEEHASTHTELTICTTOR 449
DB 421 QARVSSNNWAFEEHASTHTELTICTTOR 449

```

```

RESULT 7
US-09-843-250-33
; Sequence 33, Application US/09843250
; PUBLICATION NO. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralel, B.
; APPLICANT: Gibson, D.
; APPLICANT: Remick, S.
; APPLICANT: Remick, S.
; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
; CURRENT APPLICATION NUMBER: US/09/843.250
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; SUPPLEMENTARY INFORMATION: A polypeptide encoded by SEQ ID NO:29.
; SEQ ID NO 33
; LENGTH: 449

```

```

; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:28.
US-09-843-250-33

Query Match 99.8%; Score 2403; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 5.9e-226;
Matches 449; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MYNNKILVSSGSLGQHLHGDELPQHELTIPANMLPFTHDSILPAGDYVTAAG 60
DB 1 MYNNKILVSSGSLGQHLHGDELPQHELTIPANMLPFTHDSILPAGDYVTAAG 60
QY 61 IDIVIVSRQDSIFAPLVNCHUKTKLASVEGNANGFVCTHGVGSGNGSLQVPE 120
DB 61 IDIVIVSRQDSIFAPLVNCHUKTKLASVEGNANGFVCTHGVGSGNGSLQVPE 120
QY 121 KDLVGSINKKCLGLAVARVESFGTITGQDAPPLMDLGDAAWLEPWFHSGSL 180
DB 121 KDLVGSINKKCLGLAVARVESFGTITGQDAPPLMDLGDAAWLEPWFHSGSL 180
QY 181 ELVGPQGVVIANMVAPEAFNFGDVAHYGVGHASSLSGSSIFSSLGNAALPPEAGL 240
DB 181 ELVGPQGVVIANMVAPEAFNFGDVAHYGVGHASSLSGSSIFSSLGNAALPPEAGL 240
QY 241 QMTSKYSGWGLMDQSGVSHSDLVPELMACGACQVGRLEKADLVGVARTVSHLNCTV 300
DB 241 QMTSKYSGWGLMDQSGVSHSDLVPELMACGACQVGRLEKADLVGVARTVSHLNCTV 300
QY 301 PPNNSMLTCSGVFVKNPDIANTTWTYAIYVKNMDPEDLGRLADSVGTGPAQFWS 360
DB 301 PPNNSMLTCSGVFVKNPDIANTTWTYAIYVKNMDPEDLGRLADSVGTGPAQFWS 360
QY 361 DNNMGTASQNGKATQSDLSNLGFGVDVAVGVGVGSAIGETSYGTFRAY 420
DB 361 DNNMGTASQNGKATQSDLSNLGFGVDVAVGVGVGSAIGETSYGTFRAY 420
QY 421 QARVSSNNWAFEEHASTHTELTICTTOR 449
DB 421 QARVSSNNWAFEEHASTHTELTICTTOR 449

```

```

RESULT 8
US-09-843-250-34
; Sequence 34, Application US/09843250
; PUBLICATION NO. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralel, B.
; APPLICANT: Gibson, D.
; APPLICANT: Remick, S.
; APPLICANT: Remick, S.
; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
; CURRENT APPLICATION NUMBER: US/09/843.250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 34
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:29.
US-09-843-250-34

```

```

Query Match 99.8%; Score 2403; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 5.9e-226;
Matches 449; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```

```

QY 1 MNNKLVSEGLSQHLLHDEBELFOHEKLTIPANWLFTHDSLIPADQVYTAAG 60
DB 1 MNNKLVSEGLSQHLLHDEBELFOHEKLTIPANWLFTHDSLIPADQVYTAAG 60
QY 61 IDSVLVRNDGSTRAFNLVCHRGKTLVSVEAGNAGFVCSYHGFGSNGELASVPE 120
DB 61 IDSVLVRNDGSTRAFNLVCHRGKTLVSVEAGNAGFVCSYHGFGSNGELASVPE 120
QY 121 KOLVGSLNKCLLGLKEVAVESFGPTVGCFOEARPLADYLDGANVLEPMFWSGGL 180
DB 121 KOLVGSLNKCLLGLKEVAVESFGPTVGCFOEARPLADYLDGANVLEPMFWSGGL 180
QY 181 ELVGPFGKVTYKAWKAPAEFVGDYHVGWHTHASSLSGSIFFSLAGNALPPGAGL 240
DB 181 ELVGPFGKVTYKAWKAPAEFVGDYHVGWHTHASSLSGSIFFSLAGNALPPGAGL 240
QY 241 QMTSGYSGMGLVADGTSVHSADLVPELMAFGAQERLNEIGVYRARIYSHLACTV 300
DB 241 QMTSGYSGMGLVADGTSVHSADLVPELMAFGAQERLNEIGVYRARIYSHLACTV 300
QY 301 FNNMSLTCGTFQVKNWPDANTTEWTVALVCKWMPEDUEKRLASVORTGPAFNES 360
DB 301 FNNMSLTCGTFQVKNWPDANTTEWTVALVCKWMPEDUEKRLASVORTGPAFNES 360
QY 361 DNDNMNWTASQNGKTKQESDLSNLGVPELMAFGAQERLNEIGVYRARIYSHLACTV 420
DB 361 DNDNMNWTASQNGKTKQESDLSNLGVPELMAFGAQERLNEIGVYRARIYSHLACTV 420
QY 421 QNVSSNNWAFPEHASSWHTLELNTDKR 449
DB 421 QNVSSNNWAFPEHASSWHTLELNTDKR 449

```

RESULT 9

```

US-09-843-250-59
; Sequence 59, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralese, R.
; APPLICANT: Gibbon, B.
; APPLICANT: Resnick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: 875 00612
; FILE REFERENCE: 875 00612
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1998-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: SeqScribe for Windows Version 4.0
; SEQ ID NO 59
; LENGTH: 449
; TYPE: PRT
; FEATURE: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:57.
US-09-843-250-59

```

```

Query Match          99.88; Score 2403; DB 11; Length 449;
Best Local Similarity 99.88; Pct Id 5.22; Indels 0; Gaps 0;
Matches 448; Conservative 0; Mismatch 1;
QY 1 MNNKLVSEGLSQHLLHDEBELFOHEKLTIPANWLFTHDSLIPADQVYTAAG 60
DB 1 MNNKLVSEGLSQHLLHDEBELFOHEKLTIPANWLFTHDSLIPADQVYTAAG 60
QY 61 IDSVLVRNDGSTRAFNLVCHRGKTLVSVEAGNAGFVCSYHGFGSNGELASVPE 120
DB 61 IDSVLVRNDGSTRAFNLVCHRGKTLVSVEAGNAGFVCSYHGFGSNGELASVPE 120

```

```

QY 121 KOLVGSLNKCLLGLKEVAVESFGPTVGCFOEARPLADYLDGANVLEPMFWSGGL 180
DB 121 KOLVGSLNKCLLGLKEVAVESFGPTVGCFOEARPLADYLDGANVLEPMFWSGGL 180
QY 181 ELVGPFGKVTYKAWKAPAEFVGDYHVGWHTHASSLSGSIFFSLAGNALPPGAGL 240
DB 181 ELVGPFGKVTYKAWKAPAEFVGDYHVGWHTHASSLSGSIFFSLAGNALPPGAGL 240
QY 241 QMTSGYSGMGLVADGTSVHSADLVPELMAFGAQERLNEIGVYRARIYSHLACTV 300
DB 241 QMTSGYSGMGLVADGTSVHSADLVPELMAFGAQERLNEIGVYRARIYSHLACTV 300
QY 301 FNNMSLTCGTFQVKNWPDANTTEWTVALVCKWMPEDUEKRLASVORTGPAFNES 360
DB 301 FNNMSLTCGTFQVKNWPDANTTEWTVALVCKWMPEDUEKRLASVORTGPAFNES 360
QY 361 DNDNMNWTASQNGKTKQESDLSNLGVPELMAFGAQERLNEIGVYRARIYSHLACTV 420
DB 361 DNDNMNWTASQNGKTKQESDLSNLGVPELMAFGAQERLNEIGVYRARIYSHLACTV 420
QY 421 QNVSSNNWAFPEHASSWHTLELNTDKR 449
DB 421 QNVSSNNWAFPEHASSWHTLELNTDKR 449

```

RESULT 10

```

US-09-843-250-15
; Sequence 15, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralese, R.
; APPLICANT: Gibbon, B.
; APPLICANT: Resnick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1998-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: SeqScribe for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 449
; TYPE: PRT
; FEATURE: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:5.
US-09-843-250-15

```

```

Query Match          99.88; Score 2402; DB 11; Length 449;
Best Local Similarity 99.88; Pct Id 4.6-226; Indels 0; Gaps 0;
Matches 447; Conservative 1; Mismatch 2;
QY 1 MNNKLVSEGLSQHLLHDEBELFOHEKLTIPANWLFTHDSLIPADQVYTAAG 60
DB 1 MNNKLVSEGLSQHLLHDEBELFOHEKLTIPANWLFTHDSLIPADQVYTAAG 60
QY 61 IDSVLVRNDGSTRAFNLVCHRGKTLVSVEAGNAGFVCSYHGFGSNGELASVPE 120
DB 61 IDSVLVRNDGSTRAFNLVCHRGKTLVSVEAGNAGFVCSYHGFGSNGELASVPE 120
QY 121 KOLVGSLNKCLLGLKEVAVESFGPTVGCFOEARPLADYLDGANVLEPMFWSGGL 180
DB 121 KOLVGSLNKCLLGLKEVAVESFGPTVGCFOEARPLADYLDGANVLEPMFWSGGL 180
QY 181 ELVGPFGKVTYKAWKAPAEFVGDYHVGWHTHASSLSGSIFFSLAGNALPPGAGL 240
DB 181 ELVGPFGKVTYKAWKAPAEFVGDYHVGWHTHASSLSGSIFFSLAGNALPPGAGL 240
QY 241 QMTSGYSGMGLVADGTSVHSADLVPELMAFGAQERLNEIGVYRARIYSHLACTV 300

```

Db 241 QNTSKYSGWGLVWYSGVNSADLVPELMAFGAGKQELNKEIGDVAIVYSLNCTV 300
 Qy 301 FPNNSMTCGCVFVWPIIDNTTWTVAIVREDMPEDLJRLASVORTIOPAGWES 360
 Db 301 FPNNSMTCGCVFVWPIIDNTTWTVAIVREDMPEDLJRLASVORTIOPAGWES 360
 Qy 361 DDNDMMETASQCKYQSGSDLLSNLGFGEVDYGDVATPVVGSALGETSYRGFPYAY 420
 Db 361 DDNDMMETASQCKYQSGSDLLSNLGFGEVDYGDVATPVVGSALGETSYRGFPYAY 420
 Qy 421 QAVYSSNMAEFBSASTWTELTKTIDR 449
 Db 421 QAVYSSNMAEFBSASTWTELTKTIDR 449

RESULT 12 250-32
 US-09-843-250-36 Application US/09843250
 Publication No. US20030022335A1
 GENERAL INFORMATION:
 APPLICANT: Petaloe, R.
 APPLICANT: Gittale, D.
 APPLICANT: Resnick, S.
 APPLICANT: Lee, K.
 TITLE OF INVENTION: NO. US20030022335A1 naphthalene dioxygenase and methods for the same
 CURRENT APPLICATION NUMBER: US/09/843,250
 CURRENT FILING DATE: 2001-04-26
 PRIOR APPLICATION NUMBER: PCT/US99/25079
 PRIOR FILING DATE: 1998-10-26
 PRIOR APPLICATION NUMBER: US 60/105,575
 NUMBER OF SEQ ID NOS: 65
 NUMBER OF SEQ ID NOS: 65
 SEQ ID NO 31: FastaSeq for Windows Version 4.0
 LENGTH: 449
 TYPE: PRT
 ORGANISM: Artificial Sequence
 OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:27.
 US-09-843-250-32

Query Match 99.78; Score 24001; DB 11; Length 449;
 Best Local Similarity 99.8%; Pred. No. 1.2e-225;
 Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MMYNNKLIVSESGLSQHLIHQDELFOHEKLTIPANNKLFTHDSLTPADQVYVANG 60
 Db 1 MMYNNKLIVSESGLSQHLIHQDELFOHEKLTIPANNKLFTHDSLTPADQVYVANG 60
 Qy 61 IDTVYVSGNGEATFANVCHRGKTLVSVAGNAGVCSHGNGSGNGELGVFFPE 120
 Db 61 IDTVYVSGNGEATFANVCHRGKTLVSVAGNAGVCSHGNGSGNGELGVFFPE 120
 Qy 121 KDLVSGKNGKGLAEVAARVESFPGTGYCPQEPALMDYGDAAVYLEPMPFISGSL 180
 Db 121 KDLVSGKNGKGLAEVAARVESFPGTGYCPQEPALMDYGDAAVYLEPMPFISGSL 180
 Qy 181 ELVSGKTVVKNNAVNTVQDANVYKQVWYKVAASGSSPSGLAGNALPPEAGSL 240
 Db 181 ELVSGKTVVKNNAVNTVQDANVYKQVWYKVAASGSSPSGLAGNALPPEAGSL 240
 Qy 241 QNTSKYSGWGLVWYSGVNSADLVPELMAFGAGKQELNKEIGDVAIVYSLNCTV 300
 Db 241 QNTSKYSGWGLVWYSGVNSADLVPELMAFGAGKQELNKEIGDVAIVYSLNCTV 300
 Qy 301 FPNNSMTCGCVFVWPIIDNTTWTVAIVREDMPEDLJRLASVORTIOPAGWES 360
 Db 301 FPNNSMTCGCVFVWPIIDNTTWTVAIVREDMPEDLJRLASVORTIOPAGWES 360
 Qy 421 QAVYSSNMAEFBSASTWTELTKTIDR 449
 Db 421 QAVYSSNMAEFBSASTWTELTKTIDR 449

RESULT 13
 US-09-843-250-17

Db 361 DDNDMMETASQCKYQSGSDLLSNLGFGEVDYGDVATPVVGSALGETSYRGFPYAY 420
 Qy 421 QAVYSSNMAEFBSASTWTELTKTIDR 449
 Db 421 QAVYSSNMAEFBSASTWTELTKTIDR 449

RESULT 12 250-32
 US-09-843-250-36 Application US/09843250
 Publication No. US20030022335A1
 GENERAL INFORMATION:
 APPLICANT: Petaloe, R.
 APPLICANT: Gittale, D.
 APPLICANT: Resnick, S.
 APPLICANT: Lee, K.
 TITLE OF INVENTION: NO. US20030022335A1 naphthalene dioxygenase and methods for the same
 CURRENT APPLICATION NUMBER: US/09/843,250
 CURRENT FILING DATE: 2001-04-26
 PRIOR APPLICATION NUMBER: PCT/US99/25079
 PRIOR FILING DATE: 1998-10-26
 PRIOR APPLICATION NUMBER: US 60/105,575
 NUMBER OF SEQ ID NOS: 65
 NUMBER OF SEQ ID NOS: 65
 SEQ ID NO 31: FastaSeq for Windows Version 4.0
 LENGTH: 449
 TYPE: PRT
 ORGANISM: Artificial Sequence
 OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:27.
 US-09-843-250-32

Query Match 99.78; Score 24001; DB 11; Length 449;
 Best Local Similarity 99.8%; Pred. No. 1.2e-225;
 Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MMYNNKLIVSESGLSQHLIHQDELFOHEKLTIPANNKLFTHDSLTPADQVYVANG 60
 Db 1 MMYNNKLIVSESGLSQHLIHQDELFOHEKLTIPANNKLFTHDSLTPADQVYVANG 60
 Qy 61 IDTVYVSGNGEATFANVCHRGKTLVSVAGNAGVCSHGNGSGNGELGVFFPE 120
 Db 61 IDTVYVSGNGEATFANVCHRGKTLVSVAGNAGVCSHGNGSGNGELGVFFPE 120
 Qy 121 KDLVSGKNGKGLAEVAARVESFPGTGYCPQEPALMDYGDAAVYLEPMPFISGSL 180
 Db 121 KDLVSGKNGKGLAEVAARVESFPGTGYCPQEPALMDYGDAAVYLEPMPFISGSL 180
 Qy 181 ELVSGKTVVKNNAVNTVQDANVYKQVWYKVAASGSSPSGLAGNALPPEAGSL 240
 Db 181 ELVSGKTVVKNNAVNTVQDANVYKQVWYKVAASGSSPSGLAGNALPPEAGSL 240
 Qy 241 QNTSKYSGWGLVWYSGVNSADLVPELMAFGAGKQELNKEIGDVAIVYSLNCTV 300
 Db 241 QNTSKYSGWGLVWYSGVNSADLVPELMAFGAGKQELNKEIGDVAIVYSLNCTV 300
 Qy 301 FPNNSMTCGCVFVWPIIDNTTWTVAIVREDMPEDLJRLASVORTIOPAGWES 360
 Db 301 FPNNSMTCGCVFVWPIIDNTTWTVAIVREDMPEDLJRLASVORTIOPAGWES 360
 Qy 421 QAVYSSNMAEFBSASTWTELTKTIDR 449
 Db 421 QAVYSSNMAEFBSASTWTELTKTIDR 449

RESULT 13
 US-09-843-250-17

Sequence 17, Application US/09843250
 Publication No. US20030022335A1
 GENERAL INFORMATION: 1; Sequence 18, Application US/09843250
 Publication No. US20030022335A1
 APPLICANT: Gibson, R.
 APPLICANT: Gibson, R.
 APPLICANT: Reenick, S.
 APPLICANT: Lee, K.
 FILE REFERENCE: 875 06UGS2
 CURRENT APPLICATION NUMBER: US/09/843,250
 CURRENT FILING DATE: 2001-04-26
 PRIOR APPLICATION NUMBER: PCT/US99/25079
 PRIOR FILING DATE: 1999-10-26
 PRIOR APPLICATION NUMBER: US 60/105,575
 PRIOR FILING DATE: 1998-10-26
 NUMBER OF SEQ ID NOS: 65
 SOFTWARE: FastSeq for Windows Version 4.0
 SEQ ID NO 1: 449
 LENGTH: 449
 TYPE: PRT
 ORGANISM: Artificial Sequence
 OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:6.
 US-09-843-250-17

Query Match 90.5%; Score 2397; DB 11; Length 449;
 Best Local Similarity 99.3%; 18-220; 1; Indels 0; Gaps 0;
 Matches 446; Conservative 2; Mismatches 1;

QY 1 MNNKLVSESGLSQGLHIGDELFQELKLTIFANMLFTHDSGLIPADQYVTAAG 60
 DB 1 MNNKLVSESGLSQGLHIGDELFQELKLTIFANMLFTHDSGLIPADQYVTAAG 60
 QY 61 IDNVISVNDQSTRAFLNCHRGKTLVSVEAGNAGFVCSYTHGFGSNGSLQVPE 120
 DB 61 IDNVISVNDQSTRAFLNCHRGKTLVSVEAGNAGFVCSYTHGFGSNGSLQVPE 120
 QY 121 KLVYGSLSNKKCLGLKLEVARVSEFGFYGCFOAPPLMDYLGDAWTLPEMFHSGGL 180
 DB 121 KLVYGSLSNKKCLGLKLEVARVSEFGFYGCFOAPPLMDYLGDAWTLPEMFHSGGL 180
 QY 181 ELVGPGRVVIKANKKAPAEFVGDYHVGWTHASSLSGSEIFSSLAGNALPPEGAGL 240
 DB 181 ELVGPGRVVIKANKKAPAEFVGDYHVGWTHASSLSGSEIFSSLAGNALPPEGAGL 240
 QY 241 QMTSKYSGGMYLMDGTSGVSHSADVPELMAFGAGKQRLKEIGDVARIYVSHLACTV 300
 DB 241 QMTSKYSGGMYLMDGTSGVSHSADVPELMAFGAGKQRLKEIGDVARIYVSHLACTV 300
 QY 301 FPNSSMLTSGGVFWNPIDANTTWTVAIVKMDPELKERLADSVORTGAPGFMES 360
 DB 301 FPNSSMLTSGGVFWNPIDANTTWTVAIVKMDPELKERLADSVORTGAPGFMES 360
 QY 361 DDNDWMTAQQKKYQSGSDLSLNGFGSDYGVDAVPTGVGKSAIGSTVSGTFRAY 420
 DB 361 DDNDWMTAQQKKYQSGSDLSLNGFGSDYGVDAVPTGVGKSAIGSTVSGTFRAY 420
 QY 421 QNVSSSNWAEFHASSTWHTLKTIDR 449
 DB 421 QNVSSSNWAEFHASSTWHTLKTIDR 449

RESULT 14
 US-09-843-250-18
 Sequence 18, Application US/09843250
 Publication No. US20030022335A1
 APPLICANT: Gibson, R.
 APPLICANT: Gibson, R.
 APPLICANT: Reenick, S.
 APPLICANT: Lee, K.
 FILE REFERENCE: 875 06UGS2
 CURRENT APPLICATION NUMBER: US/09/843,250
 CURRENT FILING DATE: 2001-04-26
 PRIOR APPLICATION NUMBER: PCT/US99/25079
 PRIOR FILING DATE: 1999-10-26
 NUMBER OF SEQ ID NOS: 65
 SOFTWARE: FastSeq for Windows Version 4.0
 SEQ ID NO 1: 449
 LENGTH: 449
 TYPE: PRT
 ORGANISM: Artificial Sequence
 OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:6.
 US-09-843-250-17

Sequence 17, Application US/09/843,250
 Publication No. US20030022335A1
 GENERAL INFORMATION: 1; Sequence 18, Application US/09843250
 Publication No. US20030022335A1
 APPLICANT: Gibson, R.
 APPLICANT: Gibson, R.
 APPLICANT: Reenick, S.
 APPLICANT: Lee, K.
 FILE REFERENCE: 875 06UGS2
 CURRENT APPLICATION NUMBER: US/09/843,250
 CURRENT FILING DATE: 2001-04-26
 PRIOR APPLICATION NUMBER: PCT/US99/25079
 PRIOR FILING DATE: 1999-10-26
 PRIOR APPLICATION NUMBER: US 60/105,575
 PRIOR FILING DATE: 1998-10-26
 NUMBER OF SEQ ID NOS: 65
 SOFTWARE: FastSeq for Windows Version 4.0
 SEQ ID NO 1: 449
 LENGTH: 449
 TYPE: PRT
 ORGANISM: Artificial Sequence
 OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:7.
 US-09-843-250-18

Query Match 97.5%; Score 2349; DB 11; Length 449;
 Best Local Similarity 96.7%; 18-220; 1; Indels 0; Gaps 0;
 Matches 434; Conservative 11; Mismatches 4;

QY 1 MNNKLVSESGLSQGLHIGDELFQELKLTIFANMLFTHDSGLIPADQYVTAAG 60
 DB 1 MNNKLVSESGLSQGLHIGDELFQELKLTIFANMLFTHDSGLIPADQYVTAAG 60
 QY 61 IDNVISVNDQSTRAFLNCHRGKTLVSVEAGNAGFVCSYTHGFGSNGSLQVPE 120
 DB 61 IDNVISVNDQSTRAFLNCHRGKTLVSVEAGNAGFVCSYTHGFGSNGSLQVPE 120
 QY 121 KLVYGSLSNKKCLGLKLEVARVSEFGFYGCFOAPPLMDYLGDAWTLPEMFHSGGL 180
 DB 121 KLVYGSLSNKKCLGLKLEVARVSEFGFYGCFOAPPLMDYLGDAWTLPEMFHSGGL 180
 QY 181 ELVGPGRVVIKANKKAPAEFVGDYHVGWTHASSLSGSEIFSSLAGNALPPEGAGL 240
 DB 181 ELVGPGRVVIKANKKAPAEFVGDYHVGWTHASSLSGSEIFSSLAGNALPPEGAGL 240
 QY 241 QMTSKYSGGMYLMDGTSGVSHSADVPELMAFGAGKQRLKEIGDVARIYVSHLACTV 300
 DB 241 QMTSKYSGGMYLMDGTSGVSHSADVPELMAFGAGKQRLKEIGDVARIYVSHLACTV 300
 QY 301 FPNSSMLTSGGVFWNPIDANTTWTVAIVKMDPELKERLADSVORTGAPGFMES 360
 DB 301 FPNSSMLTSGGVFWNPIDANTTWTVAIVKMDPELKERLADSVORTGAPGFMES 360
 QY 361 DDNDWMTAQQKKYQSGSDLSLNGFGSDYGVDAVPTGVGKSAIGSTVSGTFRAY 420
 DB 361 DDNDWMTAQQKKYQSGSDLSLNGFGSDYGVDAVPTGVGKSAIGSTVSGTFRAY 420
 QY 421 QNVSSSNWAEFHASSTWHTLKTIDR 449
 DB 421 QNVSSSNWAEFHASSTWHTLKTIDR 449

RESULT 15
 US-09-843-250-19
 Sequence 19, Application US/09843250
 Publication No. US20030022335A1
 APPLICANT: Gibson, R.
 APPLICANT: Gibson, R.
 APPLICANT: Reenick, S.
 APPLICANT: Lee, K.
 FILE REFERENCE: 875 06UGS2
 CURRENT APPLICATION NUMBER: US/09/843,250
 CURRENT FILING DATE: 2001-04-26
 PRIOR APPLICATION NUMBER: PCT/US99/25079
 PRIOR FILING DATE: 1999-10-26
 NUMBER OF SEQ ID NOS: 65
 SOFTWARE: FastSeq for Windows Version 4.0
 SEQ ID NO 1: 449
 LENGTH: 449
 TYPE: PRT
 ORGANISM: Artificial Sequence
 OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:7.
 US-09-843-250-18

Sequence 18, Application US/09843250
 Publication No. US20030022335A1
 APPLICANT: Gibson, R.
 APPLICANT: Gibson, R.
 APPLICANT: Reenick, S.
 APPLICANT: Lee, K.
 FILE REFERENCE: 875 06UGS2
 CURRENT APPLICATION NUMBER: US/09/843,250
 CURRENT FILING DATE: 2001-04-26
 PRIOR APPLICATION NUMBER: PCT/US99/25079
 PRIOR FILING DATE: 1999-10-26
 NUMBER OF SEQ ID NOS: 65
 SOFTWARE: FastSeq for Windows Version 4.0
 SEQ ID NO 1: 449
 LENGTH: 449
 TYPE: PRT
 ORGANISM: Artificial Sequence
 OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:7.
 US-09-843-250-18

```

; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; DESCRIPTION: A polyprotein encoded by SEQ ID NO:8.
; NAME/KEY: SITE
; LOCATION: (35)...(35)
; OTHER INFORMATION: Xaa = any amino acid.
US-09-843-250-35

Query Match          96.4%; Score 2321; DB 11; Length 449;
Best Local Similarity 95.5%; Pred. No. 6,1e-218;
Matches 429; Conservative 13; Mismatches 7; Indels 0; Gaps 0;
QY 1 MYNNKILVSESGLSQKHLHQDELFQHELMTIFARNMLFTHDSLIPAPQDYVTRWG 60
DB 1 MYNNKILVSESGUTQKHLHQDELFQHELMTIARNMLFTHDSLIPSPGQDYVTRWG 60
QY 61 IDEVIVSRQDGSIRAFIVCHRRKCTLVSEAGNAGPVCSEYHMGHSGNGELASVPE 120
DB 61 IDEVIVSRQDGSIRAFIVCHRRKCTLVSEAGNAGPVCSEYHMGHSGNGELASVPE 120
QY 121 KDLVGSLEKKKCLGLKEVARVESFHGYGCFQEPAPPLMDVLDGADNYLPEWPKHGOL 180
DB 121 KELVGSLEKKKCLGLKEVARVESFHGYGCFQEPAPSLMDVLDGADNYLPEPIPHGGOL 180
QY 181 ELVGPQKVIKANKKAPNPVGDVYVWTHASSISGESIFSSLAGNALPPEGCGL 240
DB 181 ELVGPQKVIKANKKAPNPVGDVYVWTHASSISGESIFSSLAGNALPPEGCGL 240
QY 241 QMTSKYSGMGVLMDYEGHSADLVEFMARGCKGSELANKEIGDVARIVSRHACTV 300
DB 241 QMTSKYSGMGVLMDYEGHSADLVEFMARGCKGSELANKEIGDVARIVSRHACTV 300
QY 301 PFNSNMTCSSVTKQNTDANTETVNTVYKUSNGSGLKRIASVQRTIGAPGWS 360
DB 301 PFNSNVTCSSVTKQNTDANTETVNTVYKUSNGSGLKRIASVQRTIGAPGWS 360
QY 361 DDNDMETRAGNKKQSGSGHLSNGLGSEVYGDVYFGVVEKALGETSYFFRAY 420
DB 361 DDNDMETRAGNKKQSGSGHLSNGLGSEVYGDVYFGVVEKALGETSYFFRAY 420
QY 421 QAVYSSNMAEFASSTPMTLTNTDR 449
DB 421 QAVYSSNMAEFASSTPMTLTNTDR 449

```

Search completed, December 9, 2003, 16:09:36
 Job time : 23.1429 sec8

Applicants

GenCore version 5.1.6
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OW protein - protein search, using sw model

Run on: December 9, 2003, 15:44:14 ; Search time 22.4229 Seconds
(480000 alignments)
3771.265 Million cell updates/sec

Title: US-09-843-250-26

Perfect score: 2410

Sequence: 1

Scoring table: BLOSUM62AFESHSSTHRTUTWDR 449

Gapop 10.0 , Gapext 0.5

Searched: 684280 seqs, 185983659 residues

Total number of hits satisfying chosen parameters: 684280

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database :

- 1: /cgm2_6/prodata/1/pubpaa/US09_PUBCOMB.pep.*
- 2: /cgm2_6/prodata/1/pubpaa/US06_NEW_PUB.pep.*
- 3: /cgm2_6/prodata/1/pubpaa/US06_NEW_PUB.pep.*
- 4: /cgm2_6/prodata/1/pubpaa/US06_PUBCOMB.pep.*
- 5: /cgm2_6/prodata/1/pubpaa/US07_NEW_PUB.pep.*
- 6: /cgm2_6/prodata/1/pubpaa/US07_PUBCOMB.pep.*
- 7: /cgm2_6/prodata/1/pubpaa/US08_NEW_PUB.pep.*
- 8: /cgm2_6/prodata/1/pubpaa/US08_PUBCOMB.pep.*
- 9: /cgm2_6/prodata/1/pubpaa/US09_PUBCOMB.pep.*
- 10: /cgm2_6/prodata/1/pubpaa/US09_PUBCOMB.pep.*
- 11: /cgm2_6/prodata/1/pubpaa/US09_PUBCOMB.pep.*
- 12: /cgm2_6/prodata/1/pubpaa/US09_NEW_PUB.pep.*
- 13: /cgm2_6/prodata/1/pubpaa/US10_PUBCOMB.pep.*
- 14: /cgm2_6/prodata/1/pubpaa/US10_PUBCOMB.pep.*
- 15: /cgm2_6/prodata/1/pubpaa/US10_NEW_PUB.pep.*
- 16: /cgm2_6/prodata/1/pubpaa/US10_NEW_PUB.pep.*
- 17: /cgm2_6/prodata/1/pubpaa/US60_NEW_PUB.pep.*
- 18: /cgm2_6/prodata/1/pubpaa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2410	100.0	449	11	US-09-843-250-26
2	2407	99.8	449	11	US-09-843-250-26
3	2405	99.8	449	11	US-09-843-250-58
4	2404	99.8	449	11	US-09-843-250-35
5	2404	99.8	449	11	US-09-843-250-36
6	2403	99.7	449	11	US-09-843-250-26
7	2403	99.7	449	11	US-09-843-250-14
8	2403	99.7	449	11	US-09-843-250-15
9	2403	99.7	449	11	US-09-843-250-33
10	2402	99.7	449	11	US-09-843-250-13
11	2402	99.6	449	11	US-09-843-250-32
12	2398	99.5	449	11	US-09-843-250-16
13	2392	99.3	449	11	US-09-843-250-17
14	2392	99.3	449	11	US-09-843-250-18
15	2317	96.1	449	11	US-09-843-250-19

16	2291	95.1	449	11	US-09-843-250-20
17	2218	92.0	449	11	US-09-843-250-21
18	2188	90.8	447	11	US-09-843-250-22
19	2051	85.1	447	11	US-09-843-250-23
20	1962	80.8	451	11	US-09-843-250-24
21	743	30.8	453	9	US-09-815-242-10553
22	383	15.9	490	10	US-09-738-626-6140
23	382.5	15.9	385	9	US-09-815-242-11692
24	337.5	14.0	424	9	US-09-815-242-5097
25	242	10.7	385	9	US-09-815-242-5097
26	185	7.7	35	9	US-09-776-490-19
27	185	7.7	35	9	US-09-776-491-19
28	174	7.2	35	9	US-09-776-490-20
29	168	7.0	35	9	US-09-776-490-20
30	168	7.0	35	9	US-09-776-491-21
31	168	7.0	35	9	US-09-776-491-21
32	118.5	4.9	354	8	US-08-976-063C-4
33	113.5	4.7	951	10	US-09-524-097-15
34	110	4.6	35	9	US-09-776-491-12
35	110	4.6	35	9	US-09-776-491-12
36	109	4.5	35	9	US-09-776-490-14
37	109	4.5	35	9	US-09-776-491-14
38	108	4.5	35	9	US-09-776-490-15
39	108	4.5	35	9	US-09-776-490-15
40	108	4.5	35	9	US-09-776-491-13
41	108	4.5	35	9	US-09-776-491-15
42	107.5	4.5	542	14	US-10-244-580-78
43	107.5	4.5	542	14	US-10-244-580-78
44	106	4.4	35	9	US-09-776-490-9
45	106	4.4	35	9	US-09-776-491-9

ALIGNMENTS

RESULT 1
US-09-843-250-26
; Sequence 26, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Remick, S.
; APPLICANT: Remick, S.
; APPLICANT: Lee, K.
; FILER REFERENCE: 975, 00US20030022335A1
; CURRENT APPLICATION NUMBER: US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: US/09/843,250
; PRIOR APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SEQ ID NOS: 1-65
; SEQ ID NO 26
; TYPE: EXT
; ORGANISM: Pseudomonas sp.
US-09-843-250-26
Query Match 100.0%; Score 2410; DB 11; Length 449;
Best Local Similarity 100.0%; Pred. No. 9.3e-27;
Matches 449; Conservative 0; Mismatches 0; Gaps 0;
OY 1 MYNNKLVESGLSQSHLHIGDELFQHELTFAFNNWLFTHSLIPADQVYVANG 60
DB 1 MYNNKLVESGLSQSHLHIGDELFQHELTFAFNNWLFTHSLIPADQVYVANG 60
OY 61 IDTVIVSVQKDSIFAFVNCVCRKTLVSVFVAGNKKFVSTHGKFGSNGSLQV 120
DB 61 IDTVIVSVQKDSIFAFVNCVCRKTLVSVFVAGNKKFVSTHGKFGSNGSLQV 120
OY 121 KDIVGSSLVKVLGLAEKVAREVFHGFYICGFGDQAPPLMDYLDGATVLPWFNKSGL 180

Db 121 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300
 QY 181 ELVDPKGVVYKAWDAFNPVGDVAVHVGWTHASSIGSGESIFSSLAGNAALPPGAGL 240
 Db 181 ELVDPKGVVYKAWDAFNPVGDVAVHVGWTHASSIGSGESIFSSLAGNAALPPGAGL 240
 QY 241 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300
 Db 241 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300
 QY 301 FPNNSMLTCSGVFKWFPNDTNTWTYVAIVKDMPEDLKRLADSVORTFGPAGFMS 360
 Db 301 FPNNSMLTCSGVFKWFPNDTNTWTYVAIVKDMPEDLKRLADSVORTFGPAGFMS 360
 QY 361 DDNNMTASQNGKTKYSGSDLSNLGFGSDVGDVATFGVVGKSLGTSYGTGFYAY 420
 Db 361 DDNNMTASQNGKTKYSGSDLSNLGFGSDVGDVATFGVVGKSLGTSYGTGFYAY 420
 QY 421 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300
 Db 421 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300
 QY 301 FPNNSMLTCSGVFKWFPNDTNTWTYVAIVKDMPEDLKRLADSVORTFGPAGFMS 360
 Db 301 FPNNSMLTCSGVFKWFPNDTNTWTYVAIVKDMPEDLKRLADSVORTFGPAGFMS 360
 QY 361 DDNNMTASQNGKTKYSGSDLSNLGFGSDVGDVATFGVVGKSLGTSYGTGFYAY 420
 Db 361 DDNNMTASQNGKTKYSGSDLSNLGFGSDVGDVATFGVVGKSLGTSYGTGFYAY 420
 QY 421 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300
 Db 421 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300

RESULT 2

US-09-843-250-58
 ; Application US/09843250
 ; Publication No. US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Paralese, R.
 ; APPLICANT: Gibson, D.
 ; APPLICANT: Remick, S.
 ; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
 ; FILE REFERENCE: 875-06US2
 ; CURRENT APPLICATION NUMBER: US/09/843,250
 ; PRIORITY FILING DATE: 2001-04-26
 ; PRIOR APPLICATION NUMBER: PCT/US99/25079
 ; PRIOR FILING DATE: 1999-10-26
 ; PRIOR FILING DATE: 1998-10-26
 ; NUMBER OF SEQ ID NOS: 65
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 58
 ; LENGTH: 449
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:56.
 US-09-843-250-59

Query Match 99.8%; Score 2407; Db 11; Length 449;
 Beat Local Similarity 99.8%; Pred. No. 1.de-226;
 Matches 448; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MATNNKLIVSSGLSQHLHDSBELFOHELAITFARNMLFTHDSLIPAGDYVYATNG 60
 Db 1 MATNNKLIVSSGLSQHLHDSBELFOHELAITFARNMLFTHDSLIPAGDYVYATNG 60
 QY 61 IDIVTVSQNDGSIATFANVCHRGKTLVSVGNAGKGVCSYHGWGSGNGLQSVPE 120
 Db 61 IDIVTVSQNDGSIATFANVCHRGKTLVSVGNAGKGVCSYHGWGSGNGLQSVPE 120
 QY 121 KDYGSLANKCLGLAEVAVESFGFTYGGCTDPAFLMDYLDGAAWLEBPMFHSGGL 180
 Db 121 KDYGSLANKCLGLAEVAVESFGFTYGGCTDPAFLMDYLDGAAWLEBPMFHSGGL 180
 QY 121 KDYGSLANKCLGLAEVAVESFGFTYGGCTDPAFLMDYLDGAAWLEBPMFHSGGL 180
 Db 121 KDYGSLANKCLGLAEVAVESFGFTYGGCTDPAFLMDYLDGAAWLEBPMFHSGGL 180
 QY 181 ELVDPKGVVYKAWDAFNPVGDVAVHVGWTHASSIGSGESIFSSLAGNAALPPGAGL 240
 Db 181 ELVDPKGVVYKAWDAFNPVGDVAVHVGWTHASSIGSGESIFSSLAGNAALPPGAGL 240
 QY 241 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300
 Db 241 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300
 QY 301 FPNNSMLTCSGVFKWFPNDTNTWTYVAIVKDMPEDLKRLADSVORTFGPAGFMS 360
 Db 301 FPNNSMLTCSGVFKWFPNDTNTWTYVAIVKDMPEDLKRLADSVORTFGPAGFMS 360
 QY 361 DDNNMTASQNGKTKYSGSDLSNLGFGSDVGDVATFGVVGKSLGTSYGTGFYAY 420
 Db 361 DDNNMTASQNGKTKYSGSDLSNLGFGSDVGDVATFGVVGKSLGTSYGTGFYAY 420
 QY 421 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300

Db 241 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300
 QY 301 FPNNSMLTCSGVFKWFPNDTNTWTYVAIVKDMPEDLKRLADSVORTFGPAGFMS 360
 Db 301 FPNNSMLTCSGVFKWFPNDTNTWTYVAIVKDMPEDLKRLADSVORTFGPAGFMS 360
 QY 361 DDNNMTASQNGKTKYSGSDLSNLGFGSDVGDVATFGVVGKSLGTSYGTGFYAY 420
 Db 361 DDNNMTASQNGKTKYSGSDLSNLGFGSDVGDVATFGVVGKSLGTSYGTGFYAY 420
 QY 421 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300
 Db 421 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300
 QY 301 FPNNSMLTCSGVFKWFPNDTNTWTYVAIVKDMPEDLKRLADSVORTFGPAGFMS 360
 Db 301 FPNNSMLTCSGVFKWFPNDTNTWTYVAIVKDMPEDLKRLADSVORTFGPAGFMS 360
 QY 361 DDNNMTASQNGKTKYSGSDLSNLGFGSDVGDVATFGVVGKSLGTSYGTGFYAY 420
 Db 361 DDNNMTASQNGKTKYSGSDLSNLGFGSDVGDVATFGVVGKSLGTSYGTGFYAY 420
 QY 421 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300
 Db 421 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300

RESULT 3

US-09-843-250-58
 ; Sequence 58, Application US/09843250
 ; Publication No. US20030022335A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Paralese, R.
 ; APPLICANT: Gibson, D.
 ; APPLICANT: Remick, S.
 ; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
 ; FILE REFERENCE: 875-06US2
 ; CURRENT APPLICATION NUMBER: US/09/843,250
 ; PRIORITY FILING DATE: 2001-04-26
 ; PRIOR APPLICATION NUMBER: PCT/US99/25079
 ; PRIOR FILING DATE: 1999-10-26
 ; PRIOR FILING DATE: 1998-10-26
 ; NUMBER OF SEQ ID NOS: 65
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 58
 ; LENGTH: 449
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:56.
 US-09-843-250-59

Query Match 99.8%; Score 2405; Db 11; Length 449;
 Beat Local Similarity 99.8%; Pred. No. 2.9e-226;
 Matches 448; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MATNNKLIVSSGLSQHLHDSBELFOHELAITFARNMLFTHDSLIPAGDYVYATNG 60
 Db 1 MATNNKLIVSSGLSQHLHDSBELFOHELAITFARNMLFTHDSLIPAGDYVYATNG 60
 QY 61 IDIVTVSQNDGSIATFANVCHRGKTLVSVGNAGKGVCSYHGWGSGNGLQSVPE 120
 Db 61 IDIVTVSQNDGSIATFANVCHRGKTLVSVGNAGKGVCSYHGWGSGNGLQSVPE 120
 QY 121 KDYGSLANKCLGLAEVAVESFGFTYGGCTDPAFLMDYLDGAAWLEBPMFHSGGL 180
 Db 121 KDYGSLANKCLGLAEVAVESFGFTYGGCTDPAFLMDYLDGAAWLEBPMFHSGGL 180
 QY 181 ELVDPKGVVYKAWDAFNPVGDVAVHVGWTHASSIGSGESIFSSLAGNAALPPGAGL 240
 Db 181 ELVDPKGVVYKAWDAFNPVGDVAVHVGWTHASSIGSGESIFSSLAGNAALPPGAGL 240
 QY 241 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300
 Db 241 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300
 QY 301 FPNNSMLTCSGVFKWFPNDTNTWTYVAIVKDMPEDLKRLADSVORTFGPAGFMS 360
 Db 301 FPNNSMLTCSGVFKWFPNDTNTWTYVAIVKDMPEDLKRLADSVORTFGPAGFMS 360
 QY 361 DDNNMTASQNGKTKYSGSDLSNLGFGSDVGDVATFGVVGKSLGTSYGTGFYAY 420
 Db 361 DDNNMTASQNGKTKYSGSDLSNLGFGSDVGDVATFGVVGKSLGTSYGTGFYAY 420
 QY 421 QMTSKTSGGVGLDGTGSGVSDLSNLFVPELAFGCAQGRBLNKIEIGVRIARYSHLNTCTV 300

```

QY 421 QNVSSSNWAFPHASSTWHTLTKTIDR 449
DB 421 QNVSSSNWAFPHASSTWHTLTKTIDR 449

RESULT 4
US-09-843-250-35
; APPLICATION: US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralee, R.
; APPLICANT: Gibson, D.
; APPLICANT: Keanick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.006US2
; CURRENT FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 35
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:30.
US-09-843-250-35

```

```

Query Match 99.8%; Score 2404; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 3.6e-226;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MYNNKLVSESGLSQHLIHGBELFQHELKTIPANMLFTHDSLIPAGDYVTAKG 60
DB 1 MYNNKLVSESGLSQHLIHGBELFQHELKTIPANMLFTHDSLIPAGDYVTAKG 60

QY 61 IDSVTVSRDQSGTAFALNVCHEGKTVSVAGNAGFVCSHGFGSGNGLQSTPPE 120
DB 61 IDSVTVSRDQSGTAFALNVCHEGKTVSVAGNAGFVCSHGFGSGNGLQSTPPE 120

QY 121 XDLVGSLNKKCLGLKFAVRSFPGTYGCFQDAPPLMDYLDGAAWLEPMFHSGCL 180
DB 121 XDLVGSLNKKCLGLKFAVRSFPGTYGCFQDAPPLMDYLDGAAWLEPMFHSGCL 180

QY 181 ELVGPQPKVYKANKKAPNVAHGVNTHASISGSESSLAGNALPPEGAGL 240
DB 181 ELVGPQPKVYKANKKAPNVAHGVNTHASISGSESSLAGNALPPEGAGL 240

QY 241 QWTSKSGMGVADGTGSVHSNADVPELAFAFGKQANKELGVRARVYSHNLCTV 300
DB 241 QWTSKSGMGVADGTGSVHSNADVPELAFAFGKQANKELGVRARVYSHNLCTV 300

QY 301 FPNMSNLCTGCFKFWNPIDANTTEWVAIVGKEDPELRLADSVQTLGAPGWS 360
DB 301 FPNMSNLCTGCFKFWNPIDANTTEWVAIVGKEDPELRLADSVQTLGAPGWS 360

QY 361 DDNDNMTASQNGKTVQSHEDLLNGLGDEVDVGVNATVGVGNSALGETSYGFRAY 420
DB 361 DDNDNMTASQNGKTVQSHEDLLNGLGDEVDVGVNATVGVGNSALGETSYGFRAY 420

QY 421 QNVSSSNWAFPHASSTWHTLTKTIDR 449
DB 421 QNVSSSNWAFPHASSTWHTLTKTIDR 449

```

```

RESULT 5
US-09-843-250-36
; APPLICATION: US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralee, R.
; APPLICANT: Gibson, D.
; APPLICANT: Keanick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.006US2
; CURRENT APPLICATION NUMBER: US/09/843,250

```

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; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralee, R.
; APPLICANT: Gibson, D.
; APPLICANT: Keanick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.006US2
; CURRENT FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 36
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:31.
US-09-843-250-36

```

```

Query Match 99.8%; Score 2404; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 3.6e-226;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MYNNKLVSESGLSQHLIHGBELFQHELKTIPANMLFTHDSLIPAGDYVTAKG 60
DB 1 MYNNKLVSESGLSQHLIHGBELFQHELKTIPANMLFTHDSLIPAGDYVTAKG 60

QY 61 IDSVTVSRDQSGTAFALNVCHEGKTVSVAGNAGFVCSHGFGSGNGLQSTPPE 120
DB 61 IDSVTVSRDQSGTAFALNVCHEGKTVSVAGNAGFVCSHGFGSGNGLQSTPPE 120

QY 121 XDLVGSLNKKCLGLKFAVRSFPGTYGCFQDAPPLMDYLDGAAWLEPMFHSGCL 180
DB 121 XDLVGSLNKKCLGLKFAVRSFPGTYGCFQDAPPLMDYLDGAAWLEPMFHSGCL 180

QY 181 ELVGPQPKVYKANKKAPNVAHGVNTHASISGSESSLAGNALPPEGAGL 240
DB 181 ELVGPQPKVYKANKKAPNVAHGVNTHASISGSESSLAGNALPPEGAGL 240

QY 241 QWTSKSGMGVADGTGSVHSNADVPELAFAFGKQANKELGVRARVYSHNLCTV 300
DB 241 QWTSKSGMGVADGTGSVHSNADVPELAFAFGKQANKELGVRARVYSHNLCTV 300

QY 301 FPNMSNLCTGCFKFWNPIDANTTEWVAIVGKEDPELRLADSVQTLGAPGWS 360
DB 301 FPNMSNLCTGCFKFWNPIDANTTEWVAIVGKEDPELRLADSVQTLGAPGWS 360

QY 361 DDNDNMTASQNGKTVQSHEDLLNGLGDEVDVGVNATVGVGNSALGETSYGFRAY 420
DB 361 DDNDNMTASQNGKTVQSHEDLLNGLGDEVDVGVNATVGVGNSALGETSYGFRAY 420

QY 421 QNVSSSNWAFPHASSTWHTLTKTIDR 449
DB 421 QNVSSSNWAFPHASSTWHTLTKTIDR 449

```

```

RESULT 6
US-09-843-250-2
; APPLICATION: US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralee, R.
; APPLICANT: Gibson, D.
; APPLICANT: Keanick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.006US2
; CURRENT APPLICATION NUMBER: US/09/843,250

```

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; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR PUBLICATION NUMBER: US 60/105,575
; PRIOR FILING DATE: 1999-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:1
US-09-843-250-26

```

```

Query Match      99.7%; Score 2403; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 4.5e-226;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```

```

QY 1 MYNNKILVSSGSLSGQHLHGOELFOHEKLTIPANMLFLTHDSLPAGDYVTAKNG 60
DB 1 MYNNKILVSSGSLSGQHLHGOELFOHEKLTIPANMLFLTHDSLPAGDYVTAKNG 60
QY 61 IDSVISVRQNDGSTRAFVNCCHRGKTLVSVEAGNAGFCVCSHWGSGNGSLQVPE 120
DB 61 IDSVISVRQNDGSTRAFVNCCHRGKTLVSVEAGNAGFCVCSHWGSGNGSLQVPE 120
QY 121 KDLYSGLNKKCLGLAEVAVESFGFYGCCPQAPPLMDLTGDAATLHPMPKHGGL 180
DB 121 KDLYSGLNKKCLGLAEVAVESFGFYGCCPQAPPLMDLTGDAATLHPMPKHGGL 180
QY 181 ELVGPQKVIYANKKAPNFGDAHVGHVGHVGHVGHVGHVGHVGHVGHVGHVGHV 240
DB 181 ELVGPQKVIYANKKAPNFGDAHVGHVGHVGHVGHVGHVGHVGHVGHVGHVGHV 240
QY 241 QMTSKSGVGLVDCGYSTHSDLVPELMAPGCAQKQELNKGIDVARIYSHLACTV 300
DB 241 QMTSKSGVGLVDCGYSTHSDLVPELMAPGCAQKQELNKGIDVARIYSHLACTV 300
QY 301 FPNNSMLTCSGVFKWNPIDANTTENTWYIAVEKMPDLPKRLADSVKRTFGAPGWS 360
DB 301 FPNNSMLTCSGVFKWNPIDANTTENTWYIAVEKMPDLPKRLADSVKRTFGAPGWS 360
QY 361 DDNNMETSQNGKXQSDSLNGLGSDYVDGADYVGVGKSGALGETSYGTFRAY 420
DB 361 DDNNMETSQNGKXQSDSLNGLGSDYVDGADYVGVGKSGALGETSYGTFRAY 420
QY 421 QAVSSSWAFPEASSTWHTELKTIKTR 449
DB 421 QAVSSSWAFPEASSTWHTELKTIKTR 449

```

```

RESULT 7
; Sequence 14, Application US/09843250
; Publication No. US20030022335A1
; APPLICANT: Paralee, R.
; APPLICANT: Gibson, D.
; APPLICANT: Resnick, S.
; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875, 004US2
; CURRENT APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 449

```

```

; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:3.
US-09-843-250-14

```

```

Query Match      99.7%; Score 2403; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 4.5e-226;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```

```

QY 1 MYNNKILVSSGSLSGQHLHGOELFOHEKLTIPANMLFLTHDSLPAGDYVTAKNG 60
DB 1 MYNNKILVSSGSLSGQHLHGOELFOHEKLTIPANMLFLTHDSLPAGDYVTAKNG 60
QY 61 IDSVISVRQNDGSTRAFVNCCHRGKTLVSVEAGNAGFCVCSHWGSGNGSLQVPE 120
DB 61 IDSVISVRQNDGSTRAFVNCCHRGKTLVSVEAGNAGFCVCSHWGSGNGSLQVPE 120
QY 121 KDLYSGLNKKCLGLAEVAVESFGFYGCCPQAPPLMDLTGDAATLHPMPKHGGL 180
DB 121 KDLYSGLNKKCLGLAEVAVESFGFYGCCPQAPPLMDLTGDAATLHPMPKHGGL 180
QY 181 ELVGPQKVIYANKKAPNFGDAHVGHVGHVGHVGHVGHVGHVGHVGHVGHVGHV 240
DB 181 ELVGPQKVIYANKKAPNFGDAHVGHVGHVGHVGHVGHVGHVGHVGHVGHVGHV 240
QY 241 QMTSKSGVGLVDCGYSTHSDLVPELMAPGCAQKQELNKGIDVARIYSHLACTV 300
DB 241 QMTSKSGVGLVDCGYSTHSDLVPELMAPGCAQKQELNKGIDVARIYSHLACTV 300
QY 301 FPNNSMLTCSGVFKWNPIDANTTENTWYIAVEKMPDLPKRLADSVKRTFGAPGWS 360
DB 301 FPNNSMLTCSGVFKWNPIDANTTENTWYIAVEKMPDLPKRLADSVKRTFGAPGWS 360
QY 361 DDNNMETSQNGKXQSDSLNGLGSDYVDGADYVGVGKSGALGETSYGTFRAY 420
DB 361 DDNNMETSQNGKXQSDSLNGLGSDYVDGADYVGVGKSGALGETSYGTFRAY 420
QY 421 QAVSSSWAFPEASSTWHTELKTIKTR 449
DB 421 QAVSSSWAFPEASSTWHTELKTIKTR 449

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RESULT 8
; Sequence 15, Application US/09843250
; Publication No. US20030022335A1
; APPLICANT: Paralee, R.
; APPLICANT: Gibson, D.
; APPLICANT: Resnick, S.
; TITLE OF INVENTION: No. US20030022335A1 naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875, 004US2
; CURRENT APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:4.
US-09-843-250-15

```

```

Query Match      99.7%; Score 2403; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 4.5e-226;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```

```

QY 1 MYNNKILVSSGLSQKHLHDEBFLFOHELKTIPANNLFLTHDSLTPADQYVTAAG 60
DB 1 MYNNKILVSSGLSQKHLHDEBFLFOHELKTIPANNLFLTHDSLTPADQYVTAAG 60
QY 61 IDBTVSRQNDSSRAFLNCHRGKTLVSVEAGNAGFCVSTHWGFSNGELASVPFE 120
DB 61 IDBTVSRQNDSSRAFLNCHRGKTLVSVEAGNAGFCVSTHWGFSNGELASVPFE 120
QY 121 KDLVSRQNDSSRAFLNCHRGKTLVSVEAGNAGFCVSTHWGFSNGELASVPFE 180
DB 121 KDLVSRQNDSSRAFLNCHRGKTLVSVEAGNAGFCVSTHWGFSNGELASVPFE 180
QY 181 ELVDPQKGVYVANKKAPAEFNVDGAVHGHVHTHASSJSGESSIFSSLAGNALPPEAGL 240
DB 181 ELVDPQKGVYVANKKAPAEFNVDGAVHGHVHTHASSJSGESSIFSSLAGNALPPEAGL 240
QY 241 QMTSKYSGMGVLMGTSVHSNADLVPELMAFGAQBLKEIGDYVARIYSHLACTV 300
DB 241 QMTSKYSGMGVLMGTSVHSNADLVPELMAFGAQBLKEIGDYVARIYSHLACTV 300
QY 301 FPNMNLKTSGVFWKPNIDANTITWTVAIVKQMPEDLGRSLVSQRTGAPGWS 360
DB 301 FPNMNLKTSGVFWKPNIDANTITWTVAIVKQMPEDLGRSLVSQRTGAPGWS 360
QY 361 DDNNMFTASQNGKTKQSDSLNLSNGFGEDVTGDATVGVKGAIGERSYGFPRAY 420
DB 361 DDNNMFTASQNGKTKQSDSLNLSNGFGEDVTGDATVGVKGAIGERSYGFPRAY 420
QY 421 QMVSNNWAEFEASSTWHTLTKTDR 449
DB 421 QMVSNNWAEFEASSTWHTLTKTDR 449

```

```

RESULT 9_250-33
US-09-843-250-33
Sequence 33, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralel, R.
; APPLICANT: Resnick, S.
; APPLICANT: Resnick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; CURRENT APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO: 33
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.26.
US-09-843-250-33

```

```

Query Match 99.74; Score 2402; DB 11; Length 449;
Seq. Local Similarity 99.81; Pred. No. 5,66-226;
Matches 449; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 MYNNKILVSSGLSQKHLHDEBFLFOHELKTIPANNLFLTHDSLTPADQYVTAAG 60
DB 1 MYNNKILVSSGLSQKHLHDEBFLFOHELKTIPANNLFLTHDSLTPADQYVTAAG 60
QY 61 IDBTVSRQNDSSRAFLNCHRGKTLVSVEAGNAGFCVSTHWGFSNGELASVPFE 120
DB 61 IDBTVSRQNDSSRAFLNCHRGKTLVSVEAGNAGFCVSTHWGFSNGELASVPFE 120

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QY 121 KDLVSRQNDSSRAFLNCHRGKTLVSVEAGNAGFCVSTHWGFSNGELASVPFE 180
DB 121 KDLVSRQNDSSRAFLNCHRGKTLVSVEAGNAGFCVSTHWGFSNGELASVPFE 180
QY 181 ELVDPQKGVYVANKKAPAEFNVDGAVHGHVHTHASSJSGESSIFSSLAGNALPPEAGL 240
DB 181 ELVDPQKGVYVANKKAPAEFNVDGAVHGHVHTHASSJSGESSIFSSLAGNALPPEAGL 240
QY 241 QMTSKYSGMGVLMGTSVHSNADLVPELMAFGAQBLKEIGDYVARIYSHLACTV 300
DB 241 QMTSKYSGMGVLMGTSVHSNADLVPELMAFGAQBLKEIGDYVARIYSHLACTV 300
QY 301 FPNMNLKTSGVFWKPNIDANTITWTVAIVKQMPEDLGRSLVSQRTGAPGWS 360
DB 301 FPNMNLKTSGVFWKPNIDANTITWTVAIVKQMPEDLGRSLVSQRTGAPGWS 360
QY 361 DDNNMFTASQNGKTKQSDSLNLSNGFGEDVTGDATVGVKGAIGERSYGFPRAY 420
DB 361 DDNNMFTASQNGKTKQSDSLNLSNGFGEDVTGDATVGVKGAIGERSYGFPRAY 420
QY 421 QMVSNNWAEFEASSTWHTLTKTDR 449
DB 421 QMVSNNWAEFEASSTWHTLTKTDR 449

```

```

RESULT 10
US-09-843-250-34
Sequence 33, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralel, R.
; APPLICANT: Resnick, S.
; APPLICANT: Resnick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; CURRENT APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26 60/105,575
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO: 34
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO.29.
US-09-843-250-34

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```

Query Match 99.74; Score 2402; DB 11; Length 449;
Seq. Local Similarity 99.81; Pred. No. 5,66-226;
Matches 449; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 MYNNKILVSSGLSQKHLHDEBFLFOHELKTIPANNLFLTHDSLTPADQYVTAAG 60
DB 1 MYNNKILVSSGLSQKHLHDEBFLFOHELKTIPANNLFLTHDSLTPADQYVTAAG 60
QY 61 IDBTVSRQNDSSRAFLNCHRGKTLVSVEAGNAGFCVSTHWGFSNGELASVPFE 120
DB 61 IDBTVSRQNDSSRAFLNCHRGKTLVSVEAGNAGFCVSTHWGFSNGELASVPFE 120
QY 121 KDLVSRQNDSSRAFLNCHRGKTLVSVEAGNAGFCVSTHWGFSNGELASVPFE 180
DB 121 KDLVSRQNDSSRAFLNCHRGKTLVSVEAGNAGFCVSTHWGFSNGELASVPFE 180
QY 181 ELVDPQKGVYVANKKAPAEFNVDGAVHGHVHTHASSJSGESSIFSSLAGNALPPEAGL 240
DB 181 ELVDPQKGVYVANKKAPAEFNVDGAVHGHVHTHASSJSGESSIFSSLAGNALPPEAGL 240
QY 241 QMTSKYSGMGVLMGTSVHSNADLVPELMAFGAQBLKEIGDYVARIYSHLACTV 300

```

Db 241 QNTSKYSGWGLWJGYSVNSDLSPVFLJALFQAGKQFJLNEIGDVAIVYASHLACTV 360
 Qy 301 FPNNSMTCSGTFKFNWIDANTTWTVAIVKOMPEDJELGLADSVQTFQAGPWS 360
 Db 301 FPNNSMTCSGTFKFNWIDANTTWTVAIVKOMPEDJELGLADSVQTFQAGPWS 360
 Db 301 FPNNSMTCSGTFKFNWIDANTTWTVAIVKOMPEDJELGLADSVQTFQAGPWS 360
 Qy 361 DDNDNMETASQKQYCSQSDLSLNGRSGDYVDGAVTGVGKSAIGTSTGYFAY 420
 Db 361 DDNDNMETASQKQYCSQSDLSLNGRSGDYVDGAVTGVGKSAIGTSTGYFAY 420
 Db 361 DDNDNMETASQKQYCSQSDLSLNGRSGDYVDGAVTGVGKSAIGTSTGYFAY 420
 Qy 421 QAVYSSNMAEFHSASTWHTLTKTDR 449
 Db 421 QAVYSSNMAEFHSASTWHTLTKTDR 449
 Db 421 QAVYSSNMAEFHSASTWHTLTKTDR 449

RESULT 11
 US-09-843-250-32
 Sequence 32, Application US/09843250
 Publication No. US2003002235A1
 GENERAL INFORMATION:
 TITLE OF INVENTION: Napthalene dioxigenase and methods for the
 ORGANISM: Artificial Sequence
 TYPE: PRT
 FUNCTION:
 OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:27.
 US-09-843-250-32

Query Match 99.58; Score 2401; DB 11; Length 449;
 Best Local Similarity 99.81; Pred. No. 7,1e-226;
 Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Qy 1 MYNNKVLISGSGGLHGHDELFQHEKLTIPANMLFLTHSLIPADQVYFANG 60
 Db 1 MYNNKVLISGSGGLHGHDELFQHEKLTIPANMLFLTHSLIPADQVYFANG 60
 Qy 61 IDTVYSGNGSTAFNVCWCHGKTLVSVKAGNVCVSGFQNGSGKQGVPE 120
 Db 61 IDTVYSGNGSTAFNVCWCHGKTLVSVKAGNVCVSGFQNGSGKQGVPE 120
 Qy 121 KDLGSLNKCTGLKAVNARSFPGTGYCFQDQAPLNDYLDGANNYLEMPPISGL 180
 Db 121 KDLGSLNKCTGLKAVNARSFPGTGYCFQDQAPLNDYLDGANNYLEMPPISGL 180
 Qy 181 ELVPGKGVYIKNNKAPNFCVDAIVGVTHVTHASSLSGSEISFSLAGNALPFGAGL 240
 Db 181 ELVPGKGVYIKNNKAPNFCVDAIVGVTHVTHASSLSGSEISFSLAGNALPFGAGL 240
 Qy 241 QNTSKYSGWGLWJGYSVNSDLSPVFLJALFQAGKQFJLNEIGDVAIVYASHLACTV 300
 Db 241 QNTSKYSGWGLWJGYSVNSDLSPVFLJALFQAGKQFJLNEIGDVAIVYASHLACTV 300
 Qy 301 FPNNSMTCSGTFKFNWIDANTTWTVAIVKOMPEDJELGLADSVQTFQAGPWS 360
 Db 301 FPNNSMTCSGTFKFNWIDANTTWTVAIVKOMPEDJELGLADSVQTFQAGPWS 360
 Qy 361 DDNDNMETASQKQYCSQSDLSLNGRSGDYVDGAVTGVGKSAIGTSTGYFAY 420
 Db 361 DDNDNMETASQKQYCSQSDLSLNGRSGDYVDGAVTGVGKSAIGTSTGYFAY 420

Db 361 DDNDNMETASQKQYCSQSDLSLNGRSGDYVDGAVTGVGKSAIGTSTGYFAY 420
 Qy 421 QAVYSSNMAEFHSASTWHTLTKTDR 449
 Db 421 QAVYSSNMAEFHSASTWHTLTKTDR 449
 Db 421 QAVYSSNMAEFHSASTWHTLTKTDR 449
 RESULT 12
 US-09-843-250-15
 Sequence 15, Application US/09843250
 Publication No. US2003002235A1
 GENERAL INFORMATION:
 TITLE OF INVENTION: Napthalene dioxigenase and methods for the
 ORGANISM: Artificial Sequence
 TYPE: PRT
 FUNCTION:
 OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:5.
 US-09-843-250-15

Query Match 99.58; Score 2389; DB 11; Length 449;
 Best Local Similarity 99.61; Pred. No. 1.4e-225;
 Matches 447; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
 Qy 1 MYNNKVLISGSGGLHGHDELFQHEKLTIPANMLFLTHSLIPADQVYFANG 60
 Db 1 MYNNKVLISGSGGLHGHDELFQHEKLTIPANMLFLTHSLIPADQVYFANG 60
 Qy 61 IDTVYSGNGSTAFNVCWCHGKTLVSVKAGNVCVSGFQNGSGKQGVPE 120
 Db 61 IDTVYSGNGSTAFNVCWCHGKTLVSVKAGNVCVSGFQNGSGKQGVPE 120
 Qy 121 KDLGSLNKCTGLKAVNARSFPGTGYCFQDQAPLNDYLDGANNYLEMPPISGL 180
 Db 121 KDLGSLNKCTGLKAVNARSFPGTGYCFQDQAPLNDYLDGANNYLEMPPISGL 180
 Qy 181 ELVPGKGVYIKNNKAPNFCVDAIVGVTHVTHASSLSGSEISFSLAGNALPFGAGL 240
 Db 181 ELVPGKGVYIKNNKAPNFCVDAIVGVTHVTHASSLSGSEISFSLAGNALPFGAGL 240
 Qy 241 QNTSKYSGWGLWJGYSVNSDLSPVFLJALFQAGKQFJLNEIGDVAIVYASHLACTV 300
 Db 241 QNTSKYSGWGLWJGYSVNSDLSPVFLJALFQAGKQFJLNEIGDVAIVYASHLACTV 300
 Qy 301 FPNNSMTCSGTFKFNWIDANTTWTVAIVKOMPEDJELGLADSVQTFQAGPWS 360
 Db 301 FPNNSMTCSGTFKFNWIDANTTWTVAIVKOMPEDJELGLADSVQTFQAGPWS 360
 Qy 361 DDNDNMETASQKQYCSQSDLSLNGRSGDYVDGAVTGVGKSAIGTSTGYFAY 420
 Db 361 DDNDNMETASQKQYCSQSDLSLNGRSGDYVDGAVTGVGKSAIGTSTGYFAY 420
 Qy 421 QAVYSSNMAEFHSASTWHTLTKTDR 449
 Db 421 QAVYSSNMAEFHSASTWHTLTKTDR 449
 Db 421 QAVYSSNMAEFHSASTWHTLTKTDR 449

RESULT 13
 US-09-843-250-17

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; Sequence 17, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralel, R.
; APPLICANT: Gibson, D.
; APPLICANT: Reanick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; SEQ ID NO 18
; CURRENT APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1998-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 18
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:6.
US-09-843-250-17

Query Match          99.3%; Score 2393; DB 11; Length 449;
Beat Local Similarity 96.7%; Pred. No. 2,18-225;
Matches 446; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 MYNNKLVSESGLSQRLIHGDEELFOHEELKTFIPANNMLFTHUSLIPARGDYVYAKNG 60
DB 1 MYNNKLVSESGLSQRLIHGDEELFOHEELKTFIPANNMLFTHUSLIPARGDYVYAKNG 60

QY 61 IDETVSRONGDSITAPLANCHRGKTLVSEAGNAGKGVCSYHGMSGELQSVPE 120
DB 61 IDETVSRONGDSITAPLANCHRGKTLVSEAGNAGKGVCSYHGMSGELQSVPE 120

QY 121 KDLVSEGLNKKCLGLGEVAARVSEFPGTYGCFQDAPPLADYLDGAANTYLPMPHSGGL 180
DB 121 KDLVSEGLNKKCLGLGEVAARVSEFPGTYGCFQDAPPLADYLDGAANTYLPMPHSGGL 180

QY 181 ELVGPQKVTIVANKKAPANVGDVAVHVTGHTASSLGSSESSFSLAGNALPPBQGL 240
DB 181 ELVGPQKVTIVANKKAPANVGDVAVHVTGHTASSLGSSESSFSLAGNALPPBQGL 240

QY 241 QMTSKYSGMGVLDGYSVADAVPELMAGKQKRLKEI GDVARYVSHLNTV 300
DB 241 QMTSKYSGMGVLDGYSVADAVPELMAGKQKRLKEI GDVARYVSHLNTV 300

QY 301 FPNSSMLTSGGVKVPVNTDANTTWYVAVLKEKMDLRELAADSVQVPGAGNES 360
DB 301 FPNSSMLTSGGVKVPVNTDANTTWYVAVLKEKMDLRELAADSVQVPGAGNES 360

QY 361 DDNNMNETASQNGKYSQREDSLLNAGFGEDYGDVAVFGVSKALGESHVAGTRAY 420
DB 361 DDNNMNETASQNGKYSQREDSLLNAGFGEDYGDVAVFGVSKALGESHVAGTRAY 420

QY 421 QAVSSSNAPFEHSASTHTVETKTIDR 449
DB 421 QAVSSSNAPFEHSASTHTVETKTIDR 449

RESULT 14
US-09-843-250-18
; Sequence 18, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralel, R.
; APPLICANT: Gibson, D.
; APPLICANT: Reanick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; SEQ ID NO 19
; CURRENT APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1998-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 19
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:6.
US-09-843-250-19

Query Match          99.3%; Score 2393; DB 11; Length 449;
Beat Local Similarity 96.7%; Pred. No. 2,18-225;
Matches 446; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 MYNNKLVSESGLSQRLIHGDEELFOHEELKTFIPANNMLFTHUSLIPARGDYVYAKNG 60
DB 1 MYNNKLVSESGLSQRLIHGDEELFOHEELKTFIPANNMLFTHUSLIPARGDYVYAKNG 60

QY 61 IDETVSRONGDSITAPLANCHRGKTLVSEAGNAGKGVCSYHGMSGELQSVPE 120
DB 61 IDETVSRONGDSITAPLANCHRGKTLVSEAGNAGKGVCSYHGMSGELQSVPE 120

QY 121 KDLVSEGLNKKCLGLGEVAARVSEFPGTYGCFQDAPPLADYLDGAANTYLPMPHSGGL 180
DB 121 KDLVSEGLNKKCLGLGEVAARVSEFPGTYGCFQDAPPLADYLDGAANTYLPMPHSGGL 180

QY 181 ELVGPQKVTIVANKKAPANVGDVAVHVTGHTASSLGSSESSFSLAGNALPPBQGL 240
DB 181 ELVGPQKVTIVANKKAPANVGDVAVHVTGHTASSLGSSESSFSLAGNALPPBQGL 240

QY 241 QMTSKYSGMGVLDGYSVADAVPELMAGKQKRLKEI GDVARYVSHLNTV 300
DB 241 QMTSKYSGMGVLDGYSVADAVPELMAGKQKRLKEI GDVARYVSHLNTV 300

QY 301 FPNSSMLTSGGVKVPVNTDANTTWYVAVLKEKMDLRELAADSVQVPGAGNES 360
DB 301 FPNSSMLTSGGVKVPVNTDANTTWYVAVLKEKMDLRELAADSVQVPGAGNES 360

QY 361 DDNNMNETASQNGKYSQREDSLLNAGFGEDYGDVAVFGVSKALGESHVAGTRAY 420
DB 361 DDNNMNETASQNGKYSQREDSLLNAGFGEDYGDVAVFGVSKALGESHVAGTRAY 420

QY 421 QAVSSSNAPFEHSASTHTVETKTIDR 449
DB 421 QAVSSSNAPFEHSASTHTVETKTIDR 449

RESULT 15
US-09-843-250-19
; Sequence 19, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralel, R.
; APPLICANT: Gibson, D.
; APPLICANT: Reanick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; SEQ ID NO 19
; CURRENT APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1998-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 19
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:6.
US-09-843-250-19

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; Sequence 17, Application US/09/843,250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralel, R.
; APPLICANT: Gibson, D.
; APPLICANT: Reanick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; SEQ ID NO 18
; CURRENT APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1998-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 18
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:7.
US-09-843-250-18

Query Match          97.3%; Score 2345; DB 11; Length 449;
Beat Local Similarity 96.7%; Pred. No. 2,18-220;
Matches 434; Conservative 10; Mismatches 5; Indels 0; Gaps 0;

QY 1 MYNNKLVSESGLSQRLIHGDEELFOHEELKTFIPANNMLFTHUSLIPARGDYVYAKNG 60
DB 1 MYNNKLVSESGLSQRLIHGDEELFOHEELKTFIPANNMLFTHUSLIPARGDYVYAKNG 60

QY 61 IDETVSRONGDSITAPLANCHRGKTLVSEAGNAGKGVCSYHGMSGELQSVPE 120
DB 61 IDETVSRONGDSITAPLANCHRGKTLVSEAGNAGKGVCSYHGMSGELQSVPE 120

QY 121 KDLVSEGLNKKCLGLGEVAARVSEFPGTYGCFQDAPPLADYLDGAANTYLPMPHSGGL 180
DB 121 KDLVSEGLNKKCLGLGEVAARVSEFPGTYGCFQDAPPLADYLDGAANTYLPMPHSGGL 180

QY 181 ELVGPQKVTIVANKKAPANVGDVAVHVTGHTASSLGSSESSFSLAGNALPPBQGL 240
DB 181 ELVGPQKVTIVANKKAPANVGDVAVHVTGHTASSLGSSESSFSLAGNALPPBQGL 240

QY 241 QMTSKYSGMGVLDGYSVADAVPELMAGKQKRLKEI GDVARYVSHLNTV 300
DB 241 QMTSKYSGMGVLDGYSVADAVPELMAGKQKRLKEI GDVARYVSHLNTV 300

QY 301 FPNSSMLTSGGVKVPVNTDANTTWYVAVLKEKMDLRELAADSVQVPGAGNES 360
DB 301 FPNSSMLTSGGVKVPVNTDANTTWYVAVLKEKMDLRELAADSVQVPGAGNES 360

QY 361 DDNNMNETASQNGKYSQREDSLLNAGFGEDYGDVAVFGVSKALGESHVAGTRAY 420
DB 361 DDNNMNETASQNGKYSQREDSLLNAGFGEDYGDVAVFGVSKALGESHVAGTRAY 420

QY 421 QAVSSSNAPFEHSASTHTVETKTIDR 449
DB 421 QAVSSSNAPFEHSASTHTVETKTIDR 449

RESULT 15
US-09-843-250-19
; Sequence 19, Application US/09843250
; Publication No. US20030022335A1
; GENERAL INFORMATION:
; APPLICANT: Paralel, R.
; APPLICANT: Gibson, D.
; APPLICANT: Reanick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; SEQ ID NO 19
; CURRENT APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1998-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 19
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:7.
US-09-843-250-19

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/ LENGTH: 449
/ RESIDUES: 449
/ ORGANISM: Artificial Sequence
/ FEATURES:
/ OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:8.
/ LOCATION: 1..449
/ LOCATION: (35)
/ OTHER INFORMATION: xaa = any amino acid.
/ US-09-843-250-19

Query Match          96.18; Score 2317; DB 11; Length 449;
Best Local Similarity 95.58; Pred. No. 1.2e-217;
Matches 429; Conservative 12; Mismatches 8; Indels 0; Gaps 0;

QY 1 MNYKNKLLPSSGSLHDEELPQHELEKTIKANKWLFTHDSLPACQVYTRWG 60
DB 1 MNYKNKLLPSSGSLHDEELPQHELEKTIKANKWLFTHDSLPSPGVYTRWG 60

QY 61 IDEVIVRQNGGTRAFNVCHNKVTLNVSEKNGKPTCSKVGKSGKCEASQTFE 120
DB 1 IDEVIVRQNGGTRAFNVCHNKVTLNVSEKNGKPTCSKVGKSGKCEASQTFE 120

QY 121 KLVGKERKNGKGLGKLVNKRNGSGKPTCSQDRAKLVKGVKADNWTBEMTFEGL 180
DB 121 KLVGKERKNGKGLGKLVNKRNGSGKPTCSQDRAKLVKGVKADNWTBEMTFEGL 180

QY 181 ELVGPKPKVITANKWADANVNDKNNKVTASLSSGSELSFSSHAKNAALPFEGL 240
DB 181 ELVGPKPKVITANKWADANVNDKNNKVTASLSSGSELSFSSHAKNAALPFEGL 240

QY 241 QNYSKYSGKGVIMQVSGVSHADLVPELAFSGKAGKPKVETKIGDVFATVSHLACTV 300
DB 241 QNYSKYSGKGVIMQVSGVSHADLVPELAFSGKAGKPKVETKIGDVFATVSHLACTV 300

QY 301 PANKKATSGGVKNSGPTDANKTETVTAIVKNDKSHKRELLASVQTFQAGFWES 360
DB 301 PANKKATSGGVKNSGPTDANKTETVTAIVKNDKSHKRELLASVQTFQAGFWES 360

QY 361 DDNDNMTASQNKKTVGSELSLANKGPGVGVKADNVKGVGKADVIGKTSNGSTRAY 420
DB 361 DDNDNMTASQNKKTVGSELSLANKGPGVGVKADNVKGVGKADVIGKTSNGSTRAY 420

QY 421 QNVYSSNAPFPAAGSTVHTELKTKTOR 449
DB 421 QNVYSSNAPFPAAGSTVHTELKTKTOR 449

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Search completed: December 9, 2003, 16:09:31
 Job time : 23.1429 secs

GenCore version 5.1.6
 Copyright (c) 1993 - 2003 CompuGen Ltd.
 OM protein - protein search, using sw model
 Run on: December 9, 2003, 15:44:13, Search time 11.8571 Seconds
 1602.205 Million cell updates/sec
 Title: US-09-843-250-26
 Query score: 4 (that alignments)
 Sequence: 2 MYNYKXILVSESGSKHLI.....AFHESASHTWHETLTKYDTR 449

Scoring table: BLOSUM62
 Gapop 10.0, Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database: 1: Issued Patents RA*;
 2: /csm2_e/prodata/1/aa/sa.COMB.pep*;
 3: /csm2_e/prodata/1/aa/sa.COMB.pep*;
 4: /csm2_e/prodata/1/aa/sa.COMB.pep*;
 5: /csm2_e/prodata/1/aa/sa.COMB.pep*;
 6: /csm2_e/prodata/1/aa/sa.COMB.pep*;
 7: /csm2_e/prodata/1/aa/sa.COMB.pep*;
 8: /csm2_e/prodata/1/aa/sa.COMB.pep*;
 9: /csm2_e/prodata/1/aa/sa.COMB.pep*;
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 26: /csm2_e/prodata/1/aa/sa.COMB.pep*;
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 28: /csm2_e/prodata/1/aa/sa.COMB.pep*;
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 34: /csm2_e/prodata/1/aa/sa.COMB.pep*;
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 36: /csm2_e/prodata/1/aa/sa.COMB.pep*;
 37: /csm2_e/prodata/1/aa/sa.COMB.pep*;
 38: /csm2_e/prodata/1/aa/sa.COMB.pep*;
 39: /csm2_e/prodata/1/aa/sa.COMB.pep*;
 40: /csm2_e/prodata/1/aa/sa.COMB.pep*;
 41: /csm2_e/prodata/1/aa/sa.COMB.pep*;
 42: /csm2_e/prodata/1/aa/sa.COMB.pep*;
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Query Match	Score	Length	ID	Description
1	415.5	17.2	463	US-09-252-991A-31367	Sequence 31367, A
2	412.5	17.1	496	US-09-328-352-6452	Sequence 6452, Ap
3	312.5	14.1	445	US-09-328-352-6452	Sequence 3185, A
4	308	16.1	445	US-09-328-352-6452	Sequence 3185, A
5	364	15.1	471	US-09-328-352-7581	Sequence 7581, Ap
6	345.5	14.3	425	US-09-252-991A-25088	Sequence 25088, A
7	279.5	11.6	375	US-09-252-991A-17164	Sequence 17164, A
8	279.5	11.6	375	US-09-252-991A-17164	Sequence 17164, A
9	237.5	9.9	529	US-09-252-991A-19627	Sequence 19627, Ap
10	224	9.3	446	US-09-004-3938-4	Sequence 4, Appl
11	185	7	439	US-09-004-3938-2	Sequence 2, Appl
12	173	7	35	US-08-810-009-2	Sequence 2, Appl
13	174	7.2	35	US-08-810-009-2	Sequence 2, Appl
14	168	7	35	US-08-810-009-21	Sequence 21, Appl
15	143.5	6.0	629	US-09-252-991A-27100	Sequence 27100, A
16	143.5	6.0	629	US-09-328-352-6765	Sequence 6765, Ap
17	118.5	4.3	352	US-09-028-934-3	Sequence 3, Appl
18	116.5	4.8	379	US-09-028-934-3	Sequence 3, Appl
19	110	4.6	35	US-08-810-009-12	Sequence 12, Appl
20	109	4.5	35	US-08-810-009-14	Sequence 14, Appl
21	109	4.5	35	US-08-810-009-13	Sequence 13, Appl
22	108	4.5	35	US-08-810-009-13	Sequence 13, Appl
23	108	4.5	622	US-09-311-6268-4	Sequence 4, Appl
24	106	4.4	35	US-08-810-009-9	Sequence 9, Appl
25	104	4.3	364	US-09-328-352-4956	Sequence 4956, Ap
26	104	4.3	364	US-09-328-352-4956	Sequence 4956, Ap
27	103.5	4.3	432	US-08-809-326A-16	Sequence 16, Appl

28 103.5 4.3 432 US-09-689-912A-16
 29 103.5 4.3 432 US-09-689-912A-16
 30 103.5 4.3 432 US-09-689-912A-16
 31 103.5 4.3 432 US-09-689-912A-16
 32 103.5 4.3 432 US-09-689-912A-16
 33 103.5 4.3 432 US-09-689-912A-16
 34 103.5 4.3 432 US-09-689-912A-16
 35 103 4.3 35 US-08-810-009-8
 36 102 4.2 35 US-08-810-009-8
 37 102 4.2 35 US-08-810-009-8
 38 101 4.2 17 US-08-810-009-40
 39 101 4.2 17 US-08-810-009-45
 40 100.5 4.2 363 US-09-328-352-5961
 41 100 4.1 35 US-08-810-009-17
 42 100 4.1 35 US-08-810-009-17
 43 99 4.1 1132 US-09-138-452A-466
 44 97.5 4.0 395 US-09-252-991A-28371
 45 95 3.9 17 US-08-810-009-46

ALIGNMENTS

RESULT 1
 ; US-09-252-991A-31367
 ; Sequence 31367, Application US/09252991A
 ; Patent No. 6551795
 ; Applicant: CompuGen Ltd.
 ; APPLICANT: Marc J. Rubenstein et al.
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
 ; CURRENT FILING DATE: 1998-02-18
 ; CURRENT APPLICATION NUMBER: US/09/252,991A
 ; PRIOR FILING DATE: 1999-02-18
 ; PRIOR APPLICATION NUMBER: US 60/074,788
 ; PRIOR FILING DATE: 1998-02-18
 ; PRIOR APPLICATION NUMBER: US 60/094,190
 ; PRIOR FILING DATE: 1998-07-27
 ; NUMBER OF SEQ ID NOS: 33142
 ; SEQ ID NO 31367
 ; ORGANISM: Pseudomonas aeruginosa
 ; TYPE: PAT
 ; ORGANISM: Pseudomonas aeruginosa
 ; US-09-252-991A-31367

Query Match 17 28; Score 415.5; DB 4; Length 463;
 Best Local Similarity 29.3%; Prod No. 4,3e-31
 Matches 111; Conservative 69; Mismatches 148; Indels 51; Gaps 17;

QY 23 DPELQHKHTIYKATKMLFTHOSLPAPGVYVYKMGIDVIVSQDSIYAFVCR 82
 DB 38 DPELQHKHTIYKATKMLFTHOSLPAPGVYVYKMGIDVIVSQDSIYAFVCR 97
 QY 83 HGGKTVLVEANRKGFTVSHTGFGSGKLSQV--PFEDIKYSGKMLCG---LAE 137
 DB 88 HGGKTVLVEANRKGFTVSHTGFGSGKLSQV--PFEDIKYSGKMLCG---LAE 137
 QY 138 VARVEFSGITGCPQDPAFFADYADMTAFVPMFVS--GGLGVGPKVYKANKK 196
 DB 155 VARVEFSGITGCPQDPAFFADYADMTAFVPMFVS--GGLGVGPKVYKANKK 214
 QY 197 APANPVDAVHNG---WTHASG-----LARGESIFSSLAGAALPFGGLQ 241
 DB 215 LTKN--GDDQYVSVMVATYQQRQDADQDLPF-----MSAGMGR---CGGGPY 269
 QY 242 MYTSGGKMLVMDGVGSHVLAALVE--LMAFGAGQRLKNEIGDVAR--IYSHLNC 299
 DB 266 ---SFGHGMKLSRMAN-----PEQPAF--EFAEALDFGEARADMTENSMIC 313
 QY 300 VEPNPMSC--TCSGVKVMFIDMTNTEVYVAIVKDMPELKLKSLDVFQCPAGF 358
 DB 314 LPYVYVMDQPSQIRIAPFVSDRTETTYTCIAPKGSASBARIRIQYDFPNFSOMA 373

DB 165 AVEENKMFASPEDIDQLEFEPAPKAWIDPMQCGATPKIKGHERPFG-----219
 QY 193 ANKAPAFVGVNHWTHASLDAS-----GESFISLAGNALPFGAGIQWISKYS 248
 DB 220 -ANKQLEM-TDATHPLVHSTLSVDENETELFN-----PEN 257
 QY 249 GWKVWQVYSGHSLVPELMAFGAKQGR-LNKEIGNVR-----ARIYR- 293
 DB 258 QGQVELLDGSHVWVPELJULREDLHPQRELLAQLSDESHLELVRIYR 317
 QY 294 -----SHLICVFPNNSMLCTG-GVFKWNPIDANTETWTAIVEKO-----MPEDLKRELA 345
 DB 318 VCGSGWKLNFN-----LASHAPFAPDISVATEEL-HSVINOGGQFQANVRLRH 373
 QY 346 DSVOITQFAGFWSDSDNMTASQKQYQSGDLSLNSGFGEDVGDVAVPFGV- 404
 DB 374 HEPQ-----GFGFQFQDSBMSVY-OGHAN-AGNDLWHLNKGU-----PEVKT 418
 QY 405 -----KXMI-GETSVRGFTAYQ 421
 DB 419 EHGSLSDVSAETGQRYAQQW 440

RESULT 5

US-09-328-352-7501
 ; Sequence 17664 Application US/09252991A
 ; Patent No. 6562958
 ; GENERAL INFORMATION:

APPLICANT: Gary L. Breton et al.
 TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER

FILE REFERENCE: GTC99-033A
 CURRENT APPLICATION NUMBER: US/09/328,352

PRIOR APPLICATION NUMBER: 1999-06-04
 NUMBER OF SEQ ID NOS: 6252

SEQ ID NO 7501
 LENGTH: 471
 TYPE: CDS
 ORGANISM: Acinetobacter baumannii

US-09-328-352-7501

Query Match 15.1k; Score 364; DB 4; Length 471;
 Best Local Similarity 27.1k; Prod. No. 3.4e-26;
 Matches 115; Conservative 67; Mismatches 20; Indels 42; Gaps 14;
 QY 23 DELAPQHELTATFARNLWTLSDILPARGDYVTAAGNIDIVISQDSISATVAVCR 82
 DB 35 EPELDLNEELFEPKWTAKSHSLFPHWDFIVLQGFQFIIWSQDGHSLHVAWCE 94
 QY 83 HRCGLTVSVAGNACFVCSHWGSGSGELQSVFFPKOLGSLNKKLGLKAEVAFS 142
 DB 95 EHCATLVNANGNSGTCFPCFACMYCSQSGDLVWYAFSS-CCDDPKSSGLKQ-GR1A 152
 QY 143 SFEGTGYGQDGA-PPMDYLDGDAWYLEPKEHS-GELELGGFGKGVKANKWABA 199
 DB 150 STGVGVTFQATQSLDEFLDGLFVJGAGVSGFLGSLVQKSYSTFAGNKLGN 212
 QY 203 EHGTVGVNHWTH-----KSLRSQSTFISLAGNALPFGAGIQW- SKYSGQVUM 254
 DB 213 ENGL-DQYVGVNHWTHVYVQHQVQNAS-----KAELEDTLVKLAGDSDT 262
 QY 255 QYGVSHVADY-----PELMAFGAKQGRLNKEIGNVRATYSHL-NCTVFPNFM 306
 DB 263 DQWSPFNAGHSVLFSMDNPFVVGTVWTVYKGVKENTAHNRRLNMLYSEUP 322
 QY 307 L-TCSQGVKWNPIIDANTETWTAIVEKMDPELKLRLASVQTFQAGHESDNDN 365
 DB 323 MOQISQCLATVFPVANNVETVSCQIGWSTARENEIQDFDFNLSGLDTLVD 382
 QY 366 MEPAQKQKQYQSGDLSLNSGFGEDVGDV-----AVYFGVKSALGENTSVRYR 418
 DB 383 FREQKQFGAELEWDL-SHUCQSHVQATNSQDLQGLPITQR-----STHEGLTV 436

QY 419 AYONX 423

DB 437 NOHQH 441

RESULT 6

US-09-252-991A-25088
 ; Sequence 25088 Application US/09252991A
 ; Patent No. 6562958
 ; GENERAL INFORMATION:

APPLICANT: Marc J. Rubenfield et al.
 TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS

FILE REFERENCE: AER00A FOR DIAGNOSTICS AND THERAPEUTICS
 CURRENT APPLICATION NUMBER: US/09/252,991A

PRIOR FILING DATE: 1999-02-18
 PRIOR APPLICATION NUMBER: US 60/074,788

PRIOR APPLICATION NUMBER: 1998-02-18
 PRIOR FILING DATE: 1998-07-27

NUMBER OF SEQ ID NOS: 33142
 SEQ ID NO 25088
 LENGTH: 425
 TYPE: CDS
 ORGANISM: Pseudomonas aeruginosa

US-09-252-991A-25088

Query Match 14.3k; Score 345.5; DB 4; Length 425;
 Best Local Similarity 27.4k; Prod. No. 1.8e-24;
 Matches 114; Conservative 71; Mismatches 178; Indels 53; Gaps 15;

QY 25 ELRQHEKTFETFWMLFPHSLIDAPQDYVTAAGNIDIVISQDSISATVAVCR 84

DB 25 ELRERELHIFDSMLTAHLSLRLASGDFITRQVGSNLIHQRLADGEATVLMQGR 84

QY 85 GKTUVSRKAMGTVCSHWGSGSGELQSVFFPKOLGSLNKKLGLKAEVAFS- 143

DB 85 GAYCAERQNSQGFCTPHGTVYDHSGLGLP-DKANYQHA--QCCHPELSITRVKHA 141

QY 144 -PHGTYGQDGA-PPMDYLDGDAWYLEPKEHS-GELELGGFGKGVKANKWABA 201

DB 142 VYENLPLFYHQAQSLFETVLAQNDYIDLICQDSALHLIIPGSPHSLTANMLLNN 201

QY 202 FYGADLVGVHWTASLRSSGSISSLAGNALPFGAGIQWTKSGMGVLYADYSGVH 261

DB 202 GV-DLHLPANKEVLENT-----QTPSFHSGHSG-BAQGNHMLI 246

QY 262 S-----ADLVPE-LMAFGAKQGRLNKEIGNVR-ITRSHLNTVFN--N 304

DB 247 SPSFGTGPVNSLFTPELAKSLERAFVLRVQDGLAHNLSLFTFPMVNN 306

QY 305 SMLTCSGVGVKWNPIIDANTETWTAIVEKMDPELKLRLASVQTFQAGHESDND 364

DB 307 DLGEM--HSFPTFADNSVYVWVAGPADTETREARINGLISFGFGSGFPDVE 364

QY 365 NMEPAQKQKQYQSGDLSLNSGFGEDVGDVAVYFGVKSALGENTSVRYR 420

DB 365 ILSECO---RAYAH-----ANLQVGSDFSG---NGMATHRVHDSQNGRQFREW 407

RESULT 7

US-09-252-991A-17164
 ; Sequence 17164 Application US/09252991A
 ; Patent No. 6562958
 ; GENERAL INFORMATION:

APPLICANT: Marc J. Rubenfield et al.
 TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS

FILE REFERENCE: AER00A FOR DIAGNOSTICS AND THERAPEUTICS
 CURRENT APPLICATION NUMBER: US/09/252,991A

PRIOR FILING DATE: 1999-02-18
 PRIOR APPLICATION NUMBER: US 60/074,788

/ PRIOR FILING DATE: 1998-02-18
 / PRIOR APPLICATION NUMBER: US 60/094,190
 / PRIOR FILING DATE: 1998-07-27
 / NUMBER OF SEQ ID NOS: 33142
 / SEQ ID NO: 14
 / LENGTH: 449
 / TYPE: PRT
 / ORGANISM: Pseudomonas aeruginosa
 / US-09-252-991A-17164

Query Match 12.1%; Score 292; DB 4; Length 449;

Best Local Similarity 26.4%; Pred. No. 2,4e-19;

Matches 111; Conservative 53; Mismatches 160; Indels 96; Gaps 17;

23 DEELFOHELNTLIPANMLPDLTSLPAGQVYTAAGGDSIVTSVQSGISRAELANOR 82

Db 60 DQRLPEIDMGEIHFEMKILAGHGTCEIPAKGNFIIQIKNPVLVIRKAGQVHAHFNVC 119

Qy 83 HREKTLVSTAGNACGFCYHVGWQSGNCLQSVPEKDLVBSLNKVLGKLVARVTE 142

Db 120 HRSGLSVSEKQKAVLCYHQTMYLQDGLL---FAGTEWADPDKETGLKPI-QVK 175

Qy 143 EREIGHTYVCTDPAQAPDAPYQADAMVILPMPHKGSGLELVPGQPVYK---ANMK 196

Db 122 HRSGLSVSEKQKAVLCYHQTMYLQDGLL---FAGTEWADPDKETGLKPI-QVK 175

Qy 176 TAGGYTIFLSAENPAIDFATLIEHMFYDEN-----ANVQVITREANMK 226

Db 197 APANFVGVANVGHWTTHASLINGSRESITSLAGNALPFRAGQVTSKYSGOMVMDG 256

Qy 227 LVLEN-NRECHGSHSLK-----TLLEWDDVDEAS-QAPQVACTSMD- 276

Db 257 YGVSUADLVPELMA-FC-----GAKQ---ERLNKETGDVRA 289

Qy 277 -----AKETPVASGLNRLVPELQGVTSYHQQSGSLGRLNGLDGLRI 330

Db 290 RYVREHNTCVFPMNLTGSG-----VFKVWNTDANTTEVTAIVKDMPE----- 338

Qy 331 -----LHL-----FRNNQNDHLIVTVA-FISAGETLVTLNINSDAVGVDVDA 379

Db 339 -----DLQRLAUSVQTFQFAGFWSDDNNMETASQNGKYQSDSLNGL 388

Qy 380 BLSEWDAQDQLRLENGNLSNQVQGHFKTETFGVYFLNLS--ERHIANLGS 437

RESULT 6

US-09-328-352-4700

Sequence 4700, Application US/09328352

Best Local Similarity 24.4%; Pred. No. 6562958

Matches 86; Conservative 54; Mismatches 139; Indels 67; Gaps 15;

GENERAL INFORMATION: Rubenstein et al.

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER

FILE REFERENCE: GTC99-038A

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

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FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

Qy 131 KGLGKEVAVNSHRTTYGCTFQAPAPLPIYDGLDAMTLEPMFKHSGSLVGPQKVV 190
 Db 141 SWPEJK---VEVYAGFVFINDEANTCVQDQ---PQFARLNQACVTDKLAARFV 193
 Qy 191 IK--ANWKAENFVGDHVVGHWTTHASLINGSRESITSLAGNALPFRAGQVTSKYSG 248
 Db 194 TETPANKVIVDYNW-SECHSEPH-----PQFARLVQVDSYKH 231
 Qy 249 GNGVMDGYSVSADLVPELMAFGQKQRLNKEIGVNRVARYSHLACTV---PNNS 305
 Db 232 THQNTLVQ-----FASSEKSLDPSITVTFPHGFWT-WFCNENFQSGN 280
 Qy 306 KUTCSGVFKVNPIDANTTEVTAIVL-----EKN-----PEDKRLADS 347
 Db 281 FTYTVE---PQDDETT-LQHDITVFNELQQLQQLQWTFNWFPEU---NUVES 333
 Qy 348 VQTFQFQAPG 357
 Db 334 VQRLSKSGY 343

RESULT 9

US-09-252-991A-19627

Sequence 19627, Application US/0925991A

Best Local Similarity 24.9%; Pred. No. 6551795

Matches 86; Conservative 54; Mismatches 139; Indels 67; Gaps 15;

GENERAL INFORMATION: Rubenstein et al.

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS

FILE REFERENCE: 107136.136

FILE FILING DATE: 1999-02-18

FILE FILING DATE: 1999-02-18

FILE FILING DATE: 1999-02-18

FILE FILING DATE: 1999-02-18

FILE FILING DATE: 1999-02-18

FILE FILING DATE: 1999-02-18

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/ PRIOR FILING DATE: 1998-02-18
 / PRIOR APPLICATION NUMBER: US 60/094,190
 / PRIOR FILING DATE: 1998-07-27
 / NUMBER OF SEQ ID NOS: 33142
 / SEQ ID NO: 14
 / LENGTH: 449
 / TYPE: PRT
 / ORGANISM: Pseudomonas aeruginosa
 / US-09-252-991A-17164

Query Match 12.1%; Score 292; DB 4; Length 449;

Best Local Similarity 26.4%; Pred. No. 2,4e-19;

Matches 111; Conservative 53; Mismatches 160; Indels 96; Gaps 17;

23 DEELFOHELNTLIPANMLPDLTSLPAGQVYTAAGGDSIVTSVQSGISRAELANOR 82

Db 60 DQRLPEIDMGEIHFEMKILAGHGTCEIPAKGNFIIQIKNPVLVIRKAGQVHAHFNVC 119

Qy 83 HREKTLVSTAGNACGFCYHVGWQSGNCLQSVPEKDLVBSLNKVLGKLVARVTE 142

Db 120 HRSGLSVSEKQKAVLCYHQTMYLQDGLL---FAGTEWADPDKETGLKPI-QVK 175

Qy 143 EREIGHTYVCTDPAQAPDAPYQADAMVILPMPHKGSGLELVPGQPVYK---ANMK 196

Db 122 HRSGLSVSEKQKAVLCYHQTMYLQDGLL---FAGTEWADPDKETGLKPI-QVK 175

Qy 176 TAGGYTIFLSAENPAIDFATLIEHMFYDEN-----ANVQVITREANMK 226

Db 197 APANFVGVANVGHWTTHASLINGSRESITSLAGNALPFRAGQVTSKYSGOMVMDG 256

Qy 227 LVLEN-NRECHGSHSLK-----TLLEWDDVDEAS-QAPQVACTSMD- 276

Db 257 YGVSUADLVPELMA-FC-----GAKQ---ERLNKETGDVRA 289

Qy 277 -----AKETPVASGLNRLVPELQGVTSYHQQSGSLGRLNGLDGLRI 330

Db 290 RYVREHNTCVFPMNLTGSG-----VFKVWNTDANTTEVTAIVKDMPE----- 338

Qy 331 -----LHL-----FRNNQNDHLIVTVA-FISAGETLVTLNINSDAVGVDVDA 379

Db 339 -----DLQRLAUSVQTFQFAGFWSDDNNMETASQNGKYQSDSLNGL 388

Qy 380 BLSEWDAQDQLRLENGNLSNQVQGHFKTETFGVYFLNLS--ERHIANLGS 437

RESULT 8

US-09-328-352-4700

Sequence 4700, Application US/09328352

Best Local Similarity 24.4%; Pred. No. 6562958

Matches 86; Conservative 54; Mismatches 139; Indels 67; Gaps 15;

GENERAL INFORMATION: Rubenstein et al.

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER

FILE REFERENCE: GTC99-038A

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

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FILE FILING DATE: 1998-02-18

/ PRIOR FILING DATE: 1998-02-18
 / PRIOR APPLICATION NUMBER: US 60/094,190
 / PRIOR FILING DATE: 1998-07-27
 / NUMBER OF SEQ ID NOS: 33142
 / SEQ ID NO: 14
 / LENGTH: 449
 / TYPE: PRT
 / ORGANISM: Pseudomonas aeruginosa
 / US-09-252-991A-17164

Query Match 12.1%; Score 292; DB 4; Length 449;

Best Local Similarity 26.4%; Pred. No. 2,4e-19;

Matches 111; Conservative 53; Mismatches 160; Indels 96; Gaps 17;

23 DEELFOHELNTLIPANMLPDLTSLPAGQVYTAAGGDSIVTSVQSGISRAELANOR 82

Db 60 DQRLPEIDMGEIHFEMKILAGHGTCEIPAKGNFIIQIKNPVLVIRKAGQVHAHFNVC 119

Qy 83 HREKTLVSTAGNACGFCYHVGWQSGNCLQSVPEKDLVBSLNKVLGKLVARVTE 142

Db 120 HRSGLSVSEKQKAVLCYHQTMYLQDGLL---FAGTEWADPDKETGLKPI-QVK 175

Qy 143 EREIGHTYVCTDPAQAPDAPYQADAMVILPMPHKGSGLELVPGQPVYK---ANMK 196

Db 122 HRSGLSVSEKQKAVLCYHQTMYLQDGLL---FAGTEWADPDKETGLKPI-QVK 175

Qy 176 TAGGYTIFLSAENPAIDFATLIEHMFYDEN-----ANVQVITREANMK 226

Db 197 APANFVGVANVGHWTTHASLINGSRESITSLAGNALPFRAGQVTSKYSGOMVMDG 256

Qy 227 LVLEN-NRECHGSHSLK-----TLLEWDDVDEAS-QAPQVACTSMD- 276

Db 257 YGVSUADLVPELMA-FC-----GAKQ---ERLNKETGDVRA 289

Qy 277 -----AKETPVASGLNRLVPELQGVTSYHQQSGSLGRLNGLDGLRI 330

Db 290 RYVREHNTCVFPMNLTGSG-----VFKVWNTDANTTEVTAIVKDMPE----- 338

Qy 331 -----LHL-----FRNNQNDHLIVTVA-FISAGETLVTLNINSDAVGVDVDA 379

Db 339 -----DLQRLAUSVQTFQFAGFWSDDNNMETASQNGKYQSDSLNGL 388

Qy 380 BLSEWDAQDQLRLENGNLSNQVQGHFKTETFGVYFLNLS--ERHIANLGS 437

RESULT 7

US-09-328-352-4700

Sequence 4700, Application US/09328352

Best Local Similarity 24.4%; Pred. No. 6562958

Matches 86; Conservative 54; Mismatches 139; Indels 67; Gaps 15;

GENERAL INFORMATION: Rubenstein et al.

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER

FILE REFERENCE: GTC99-038A

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

FILE FILING DATE: 1998-02-18

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Search completed: December 9, 2003, 15:45:52
Job time : 12 sec0


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Db 361 DDDMMMTASQNGKCYQSRSDLSANLGFGBDYGDAVPTGVGKSAIGTSYVGFAY 420
Qy 421 QAVVSSNNAAEFASSTWHTLTKTTDR 449
Db 421 QAVVSSNNAAEFASSTWHTLTKTTDR 449

```

RESULT 4

```

US-09-843-250-36
; Sequence 36, Application US/09843250
; Publication No. US20030022335A1
; CURRENT APPLICATION NUMBER: US/09/843,250
; APPLICANT: Paralese, R.
; APPLICANT: Remick, S.
; APPLICANT: Gibson, D.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875 06UGS2
; CURRENT APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 2001-04-26
; PRIOR FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 36
; LENGTH: 449
; TYPE: PRT
; FEATURE: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:31.
US-09-843-250-36

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Query Match 100.0%; Score 2407; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 3,26-226; Indels 0; Gaps 0;
Matches 448; Conservative 1; Mismatches 0;
Qy 1 MYNNKILTVSESSLSQHLHGHDELFQHEKATIPANWLPFHDSLIPAGQVYTAGG 60
Db 1 MYNNKILTVSESSLSQHLHGHDELFQHEKATIPANWLPFHDSLIPAGQVYTAGG 60
Qy 61 IDTVIVSRQNDSTAFVAVCHUKKTLVSVKAGNKFVCSYHGMFGSNGELASVPE 120
Qy 61 IDTVIVSRQNDSTAFVAVCHUKKTLVSVKAGNKFVCSYHGMFGSNGELASVPE 120
Qy 121 KDLYGSLANKKGLKAEVAVESFNGFYCGDQEAAPPADYLDADAWLPEMFAGSL 180
Qy 121 KDLYGSLANKKGLKAEVAVESFNGFYCGDQEAAPPADYLDADAWLPEMFAGSL 180
Qy 181 ELVGPFGKVIYVANKAKPAENFVGDVAVGVHTWHTASLSSGSISSLAGNAAAPPAGL 240
Qy 181 ELVGPFGKVIYVANKAKPAENFVGDVAVGVHTWHTASLSSGSISSLAGNAAAPPAGL 240
Qy 241 QMTSKYSGMGVLMQTSQVSHSADVPELWAFVGAQKRELNKEIGDVARLYSHLNCTV 300
Qy 241 QMTSKYSGMGVLMQTSQVSHSADVPELWAFVGAQKRELNKEIGDVARLYSHLNCTV 300
Qy 301 FNNMSLTCGKVFVMPFDIANTETWTVLAVKQMPEDKRELAADVQVGTGAPGWS 360
Qy 301 FNNMSLTCGKVFVMPFDIANTETWTVLAVKQMPEDKRELAADVQVGTGAPGWS 360
Qy 361 DDDMMMTASQNGKCYQSRSDLSANLGFGBDYGDAVPTGVGKSAIGTSYVGFAY 420
Qy 361 DDDMMMTASQNGKCYQSRSDLSANLGFGBDYGDAVPTGVGKSAIGTSYVGFAY 420
Qy 421 QAVVSSNNAAEFASSTWHTLTKTTDR 449
Qy 421 QAVVSSNNAAEFASSTWHTLTKTTDR 449

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RESULT 5

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; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the

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US-09-843-250-35
; Sequence 35, Application US/09843250
; Publication No. US20030022335A1
; CURRENT APPLICATION NUMBER: US/09/843,250
; APPLICANT: Paralese, R.
; APPLICANT: Remick, S.
; APPLICANT: Gibson, D.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875 06UGS2
; CURRENT APPLICATION NUMBER: US/09/843,250
; PRIOR FILING DATE: 2001-04-26
; PRIOR FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 35
; LENGTH: 449
; TYPE: PRT
; FEATURE: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:30.
US-09-843-250-35

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```

Query Match 100.0%; Score 2405; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 3,18-226; Indels 0; Gaps 0;
Matches 448; Conservative 1; Mismatches 0;
Qy 1 MYNNKILTVSESSLSQHLHGHDELFQHEKATIPANWLPFHDSLIPAGQVYTAGG 60
Qy 1 MYNNKILTVSESSLSQHLHGHDELFQHEKATIPANWLPFHDSLIPAGQVYTAGG 60
Qy 61 IDTVIVSRQNDSTAFVAVCHUKKTLVSVKAGNKFVCSYHGMFGSNGELASVPE 120
Qy 61 IDTVIVSRQNDSTAFVAVCHUKKTLVSVKAGNKFVCSYHGMFGSNGELASVPE 120
Qy 121 KDLYGSLANKKGLKAEVAVESFNGFYCGDQEAAPPADYLDADAWLPEMFAGSL 180
Qy 121 KDLYGSLANKKGLKAEVAVESFNGFYCGDQEAAPPADYLDADAWLPEMFAGSL 180
Qy 181 ELVGPFGKVIYVANKAKPAENFVGDVAVGVHTWHTASLSSGSISSLAGNAAAPPAGL 240
Qy 181 ELVGPFGKVIYVANKAKPAENFVGDVAVGVHTWHTASLSSGSISSLAGNAAAPPAGL 240
Qy 241 QMTSKYSGMGVLMQTSQVSHSADVPELWAFVGAQKRELNKEIGDVARLYSHLNCTV 300
Qy 241 QMTSKYSGMGVLMQTSQVSHSADVPELWAFVGAQKRELNKEIGDVARLYSHLNCTV 300
Qy 301 FNNMSLTCGKVFVMPFDIANTETWTVLAVKQMPEDKRELAADVQVGTGAPGWS 360
Qy 301 FNNMSLTCGKVFVMPFDIANTETWTVLAVKQMPEDKRELAADVQVGTGAPGWS 360
Qy 361 DDDMMMTASQNGKCYQSRSDLSANLGFGBDYGDAVPTGVGKSAIGTSYVGFAY 420
Qy 361 DDDMMMTASQNGKCYQSRSDLSANLGFGBDYGDAVPTGVGKSAIGTSYVGFAY 420
Qy 421 QAVVSSNNAAEFASSTWHTLTKTTDR 449
Qy 421 QAVVSSNNAAEFASSTWHTLTKTTDR 449

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RESULT 6

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US-09-843-250-33
; Sequence 33, Application US/09843250
; Publication No. US20030022335A1
; CURRENT APPLICATION NUMBER: US/09/843,250
; APPLICANT: Paralese, R.
; APPLICANT: Gibson, D.
; APPLICANT: Remick, S.
; APPLICANT: Lee, K.
; TITLE OF INVENTION: No. US20030022335A1el naphthalene dioxygenase and methods for the

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```
FILE REFERENCE: 875.006982
CURRENT APPLICATION NUMBER: US/09/843,250
CURRENT FILING DATE: 2001-04-26
PRIOR APPLICATION NUMBER: PCT/US99/25079
INVENTOR: Lee, K.
PRIORITY DATE: 1998-10-26
PRIOR FILING DATE: 1998-10-26
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSeq for Windows Version 4.0
SEQUENCE: P843SEQ
LENGTH: 449
TYPE: PRT
ORGANISM: Artificial Sequence
OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:28.
US-09-843-250-33

Query Match      99.8%; Score 2404; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 6,46-226; Indels 0; Gaps 0;
Matches 449; Conservative 0; Mismatches 2;

Oy 1 MYNNKLVIVSSGSLSGQLHGDSELFQHEKLTIFARNMLFLTHDSLIIPANGDYVTAQNG 60
Db 1 MYNNKLVIVSSGSLSGQLHGDSELFQHEKLTIFARNMLFLTHDSLIIPANGDYVTAQNG 60

Oy 61 IDIVTVSQNDSTRAFLANVCHRGKTLVSEVGNAGKGFVCSHWGFGSNGSLQVPE 120
Db 61 IDIVTVSQNDSTRAFLANVCHRGKTLVSEVGNAGKGFVCSHWGFGSNGSLQVPE 120

Oy 121 KOLVGSINLKKCLGKGLAEVARVESPHGTYGCTPOEAPPLMDYLGDAWYLFEMFKHSGEL 180
Db 121 KOLVGSINLKKCLGKGLAEVARVESPHGTYGCTPOEAPPLMDYLGDAWYLFEMFKHSGEL 180

Oy 181 ELVGPCKVIVANMKAPENFVGDAVHVGHVTHASSLGSESIFFSLAGNALPPEAGL 240
Db 181 ELVGPCKVIVANMKAPENFVGDAVHVGHVTHASSLGSESIFFSLAGNALPPEAGL 240

Oy 241 QMTSKYSGGVLMDGTSGVSDALVPELMAFGAKQERLNKEIGDVRARYRSHLNTV 300
Db 241 QMTSKYSGGVLMDGTSGVSDALVPELMAFGAKQERLNKEIGDVRARYRSHLNTV 300

Oy 301 FPNMSMLTSGGVFWKFNPDANTTWVYAVYKMDPEDKRLADSVQRTGPAQWES 360
Db 301 FPNMSMLTSGGVFWKFNPDANTTWVYAVYKMDPEDKRLADSVQRTGPAQWES 360

Oy 361 DDNNMETASQNGKYSQSDLSNLGNFGVGDVATVGVVGSALGETSYRGPFRAY 420
Db 361 DDNNMETASQNGKYSQSDLSNLGNFGVGDVATVGVVGSALGETSYRGPFRAY 420

Oy 421 QAHVSSSWAEFEASSTHWTETKTIDR 449
Db 421 QAHVSSSWAEFEASSTHWTETKTIDR 449

RESULT 7
US-09-843-250-34
Sequence 34, Application US/09843250
GENERAL INFORMATION:
INVENTOR: Lee, K.
PRIORITY DATE: 1998-10-26
PRIOR APPLICATION NUMBER: PCT/US99/25079
PRIOR FILING DATE: 1998-10-26
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSeq for Windows Version 4.0
SEQUENCE: P843SEQ
LENGTH: 449
TYPE: PRT
ORGANISM: Artificial Sequence
OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:28.
US-09-843-250-35
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```
FILE REFERENCE: 875.006982
CURRENT APPLICATION NUMBER: US/09/843,250
CURRENT FILING DATE: 2001-04-26
PRIOR APPLICATION NUMBER: PCT/US99/25079
INVENTOR: Lee, K.
PRIORITY DATE: 1998-10-26
PRIOR APPLICATION NUMBER: US 60/105,575
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSeq for Windows Version 4.0
SEQUENCE: P843SEQ
LENGTH: 449
TYPE: PRT
ORGANISM: Artificial Sequence
OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:29.
US-09-843-250-34

Query Match      99.8%; Score 2404; DB 11; Length 449;
Best Local Similarity 99.8%; Pred. No. 6,46-226; Indels 0; Gaps 0;
Matches 449; Conservative 0; Mismatches 2;

Oy 1 MYNNKLVIVSSGSLSGQLHGDSELFQHEKLTIFARNMLFLTHDSLIIPANGDYVTAQNG 60
Db 1 MYNNKLVIVSSGSLSGQLHGDSELFQHEKLTIFARNMLFLTHDSLIIPANGDYVTAQNG 60

Oy 61 IDIVTVSQNDSTRAFLANVCHRGKTLVSEVGNAGKGFVCSHWGFGSNGSLQVPE 120
Db 61 IDIVTVSQNDSTRAFLANVCHRGKTLVSEVGNAGKGFVCSHWGFGSNGSLQVPE 120

Oy 121 KOLVGSINLKKCLGKGLAEVARVESPHGTYGCTPOEAPPLMDYLGDAWYLFEMFKHSGEL 180
Db 121 KOLVGSINLKKCLGKGLAEVARVESPHGTYGCTPOEAPPLMDYLGDAWYLFEMFKHSGEL 180

Oy 181 ELVGPCKVIVANMKAPENFVGDAVHVGHVTHASSLGSESIFFSLAGNALPPEAGL 240
Db 181 ELVGPCKVIVANMKAPENFVGDAVHVGHVTHASSLGSESIFFSLAGNALPPEAGL 240

Oy 241 QMTSKYSGGVLMDGTSGVSDALVPELMAFGAKQERLNKEIGDVRARYRSHLNTV 300
Db 241 QMTSKYSGGVLMDGTSGVSDALVPELMAFGAKQERLNKEIGDVRARYRSHLNTV 300

Oy 301 FPNMSMLTSGGVFWKFNPDANTTWVYAVYKMDPEDKRLADSVQRTGPAQWES 360
Db 301 FPNMSMLTSGGVFWKFNPDANTTWVYAVYKMDPEDKRLADSVQRTGPAQWES 360

Oy 361 DDNNMETASQNGKYSQSDLSNLGNFGVGDVATVGVVGSALGETSYRGPFRAY 420
Db 361 DDNNMETASQNGKYSQSDLSNLGNFGVGDVATVGVVGSALGETSYRGPFRAY 420

Oy 421 QAHVSSSWAEFEASSTHWTETKTIDR 449
Db 421 QAHVSSSWAEFEASSTHWTETKTIDR 449

RESULT 8
US-09-843-250-16
Sequence 16, Application US/09843250
GENERAL INFORMATION:
INVENTOR: Lee, K.
PRIORITY DATE: 1998-10-26
PRIOR APPLICATION NUMBER: PCT/US99/25079
PRIOR FILING DATE: 1998-10-26
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSeq for Windows Version 4.0
SEQUENCE: P843SEQ
LENGTH: 449
TYPE: PRT
ORGANISM: Artificial Sequence
OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:15.
US-09-843-250-16

Query Match      99.8%; Score 2403; DB 11; Length 449;
```

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Best Local Similarity 99.8%; Pred. No. 8e-226;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MYNNKLVISGSLGKQHLHDSBELFOHKLTI PANNNLPFHDSLPAPQDVYVANG 60
DB 1 MYNNKLVISGSLGKQHLHDSBELFOHKLTI PANNNLPFHDSLPAPQDVYVANG 60

QY 61 IDIVVSRODGSITRAFANVCHRGKCTVSVGAGNAGFCVSVHGGGSGNGELQVPE 120
DB 61 IDIVVSRODGSITRAFANVCHRGKCTVSVGAGNAGFCVSVHGGGSGNGELQVPE 120

QY 121 KOLYGSINLKCKLGKAVAVESFHGFIYQCPDGAAPLMYVGDAAVLEMPKISGGL 180
DB 121 KOLYGSINLKCKLGKAVAVESFHGFIYQCPDGAAPLMYVGDAAVLEMPKISGGL 180

QY 181 ELVPGPKVYIKANWKAFAENVPVGDVAVHVTWTHASSLGSGSIFSSLAGNALPPFGAGL 240
DB 181 ELVPGPKVYIKANWKAFAENVPVGDVAVHVTWTHASSLGSGSIFSSLAGNALPPFGAGL 240

QY 241 QMTSKSGGNGVLMGQSVSDASVPSLANVPGAGAKGRLKEIGDVAATYKSHLCTY 300
DB 241 QMTSKSGGNGVLMGQSVSDASVPSLANVPGAGAKGRLKEIGDVAATYKSHLCTY 300

QY 301 FNNSMITCSGVKFWMEIDANTETWTVYAVVECDPELRELAUSQVTPGAGFES 360
DB 301 FNNSMITCSGVKFWMEIDANTETWTVYAVVECDPELRELAUSQVTPGAGFES 360

QY 361 DNDNMETASQKQKQSGSDLSNLGRGSDVGDVAVVGVKSAIGTSTGTFYAY 420
DB 361 DNDNMETASQKQKQSGSDLSNLGRGSDVGDVAVVGVKSAIGTSTGTFYAY 420

QY 421 QHVVSSNNAFHAASSTWHTELTKTDDR 449
DB 421 QHVVSSNNAFHAASSTWHTELTKTDDR 449

RESULT 10
US-09-843-250-59
; Sequence 59; Application US/09843250
; Title OF INVENTION: NO. US20030022335A1e1 naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.006082
; CURRENT APPLICATION NUMBER: US/09/843,250
; GENERAL INFORMATION: NO. US20030022335A1
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 26
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:57.
; Query Match 99.8%; Score 2403; DB 11; Length 449;
; Local Similarity 99.8%; Pred. No. 8e-226; 1; Indels 0; Gaps 0;
; Matches 448; Conservative 0; Mismatches 1;

QY 1 MYNNKLVISGSLGKQHLHDSBELFOHKLTI PANNNLPFHDSLPAPQDVYVANG 60
DB 1 MYNNKLVISGSLGKQHLHDSBELFOHKLTI PANNNLPFHDSLPAPQDVYVANG 60

QY 61 IDIVVSRODGSITRAFANVCHRGKCTVSVGAGNAGFCVSVHGGGSGNGELQVPE 120
DB 61 IDIVVSRODGSITRAFANVCHRGKCTVSVGAGNAGFCVSVHGGGSGNGELQVPE 120

QY 121 KOLYGSINLKCKLGKAVAVESFHGFIYQCPDGAAPLMYVGDAAVLEMPKISGGL 180
DB 121 KOLYGSINLKCKLGKAVAVESFHGFIYQCPDGAAPLMYVGDAAVLEMPKISGGL 180

QY 181 ELVPGPKVYIKANWKAFAENVPVGDVAVHVTWTHASSLGSGSIFSSLAGNALPPFGAGL 240
DB 181 ELVPGPKVYIKANWKAFAENVPVGDVAVHVTWTHASSLGSGSIFSSLAGNALPPFGAGL 240

QY 241 QMTSKSGGNGVLMGQSVSDASVPSLANVPGAGAKGRLKEIGDVAATYKSHLCTY 300
DB 241 QMTSKSGGNGVLMGQSVSDASVPSLANVPGAGAKGRLKEIGDVAATYKSHLCTY 300

Best Local Similarity 99.8%; Pred. No. 8e-226;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MYNNKLVISGSLGKQHLHDSBELFOHKLTI PANNNLPFHDSLPAPQDVYVANG 60
DB 1 MYNNKLVISGSLGKQHLHDSBELFOHKLTI PANNNLPFHDSLPAPQDVYVANG 60

QY 61 IDIVVSRODGSITRAFANVCHRGKCTVSVGAGNAGFCVSVHGGGSGNGELQVPE 120
DB 61 IDIVVSRODGSITRAFANVCHRGKCTVSVGAGNAGFCVSVHGGGSGNGELQVPE 120

QY 121 KOLYGSINLKCKLGKAVAVESFHGFIYQCPDGAAPLMYVGDAAVLEMPKISGGL 180
DB 121 KOLYGSINLKCKLGKAVAVESFHGFIYQCPDGAAPLMYVGDAAVLEMPKISGGL 180

QY 181 ELVPGPKVYIKANWKAFAENVPVGDVAVHVTWTHASSLGSGSIFSSLAGNALPPFGAGL 240
DB 181 ELVPGPKVYIKANWKAFAENVPVGDVAVHVTWTHASSLGSGSIFSSLAGNALPPFGAGL 240

QY 241 QMTSKSGGNGVLMGQSVSDASVPSLANVPGAGAKGRLKEIGDVAATYKSHLCTY 300
DB 241 QMTSKSGGNGVLMGQSVSDASVPSLANVPGAGAKGRLKEIGDVAATYKSHLCTY 300

RESULT 9
US-09-843-250-26
; Sequence 26; Application US/09843250
; Title OF INVENTION: NO. US20030022335A1
; FILE REFERENCE: 875.006082
; CURRENT APPLICATION NUMBER: US/09/843,250
; GENERAL INFORMATION: NO. US20030022335A1
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR APPLICATION NUMBER: US 60/105,575
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 26
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Pseudomonas sp.
; OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:26.
; Query Match 99.8%; Score 2403; DB 11; Length 449;
; Local Similarity 99.8%; Pred. No. 8e-226; 1; Indels 0; Gaps 0;
; Matches 448; Conservative 0; Mismatches 1;

QY 1 MYNNKLVISGSLGKQHLHDSBELFOHKLTI PANNNLPFHDSLPAPQDVYVANG 60
DB 1 MYNNKLVISGSLGKQHLHDSBELFOHKLTI PANNNLPFHDSLPAPQDVYVANG 60

QY 61 IDIVVSRODGSITRAFANVCHRGKCTVSVGAGNAGFCVSVHGGGSGNGELQVPE 120
DB 61 IDIVVSRODGSITRAFANVCHRGKCTVSVGAGNAGFCVSVHGGGSGNGELQVPE 120

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Db 241 QNTSKYSGMWTADGSGVSHADUPELMAPFGAKRKLNEKJGDAVRYTSHACTV 300
QY 301 FPNNSKMTCSGVKFWNPIDANTFWTALVTCMDPELAKRLDASVQTVGAGWES 360
Db 301 FPNNSKMTCSGVKFWNPIDANTFWTALVTCMDPELAKRLDASVQTVGAGWES 360
QY 361 DDNNMETASQKCTQGRSDLLSNLGRGDEVDYGVDPVGVKSGAIGTSYRGFTAY 420
Db 361 DDNNMETASQKCTQGRSDLLSNLGRGDEVDYGVDPVGVKSGAIGTSYRGFTAY 420
QY 421 QNVSSSNWAFEFHASTWTETLKTIDR 449
Db 421 QNVSSSNWAFEFHASTWTETLKTIDR 449

RESULT 12
US-09-843-250-58
; Sequence 58, Application US/09843250
; FILE REFERENCE: 875.06G8S2 US/09/843,250
; GENERAL INFORMATION: NO. US2003002233SAL naphthalene dioxygenase and methods for the
; APPLICANT: Perales, R.
; APPLICANT: Gibson, D.
; APPLICANT: Lee, K.
; APPLICANT: Smith, S.
; TITLE OF INVENTOR: NO. US2003002233SAL naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.06G8S2 US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 58
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE INFORMATION: A polypeptide encoded by SEQ ID NO:58.
US-09-843-250-58
Query Match 99.7%; Score 2401; DB 11; Length 449;
Best Local Similarity 99.8%; Pctid No. 1,26-225;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 MANNKLVLSSEGLQGLIHDSBPIQSHKXTPANKEWTFHUSLTPAFDVTWVNG 60
Db 1 MANNKLVLSSEGLQGLIHDSBPIQSHKXTPANKEWTFHUSLTPAFDVTWVNG 60
QY 61 IDTVTVSNGSGTATLVCHRGHTLVYVAGNAGVCSYHNGSKNSKSGVPE 120
Db 61 IDTVTVSNGSGTATLVCHRGHTLVYVAGNAGVCSYHNGSKNSKSGVPE 120
QY 121 KDLVGSNKLGLAKVAVSPFPGFTYCGQDPAEPLMDYGDANNYLEWTFHSGEL 180
Db 121 KDLVGSNKLGLAKVAVSPFPGFTYCGQDPAEPLMDYGDANNYLEWTFHSGEL 180
QY 181 ELVDPGKVKTKANNAKPAENPVGDYAVTGMTHASSLRESSTPSLALNALPFGAGL 240
Db 181 ELVDPGKVKTKANNAKPAENPVGDYAVTGMTHASSLRESSTPSLALNALPFGAGL 240
QY 241 QNTSKYSGMWTADGSGVSHADUPELMAPFGAKRKLNEKJGDAVRYTSHACTV 300
Db 241 QNTSKYSGMWTADGSGVSHADUPELMAPFGAKRKLNEKJGDAVRYTSHACTV 300
QY 301 FPNNSKMTCSGVKFWNPIDANTFWTALVTCMDPELAKRLDASVQTVGAGWES 360
Db 301 FPNNSKMTCSGVKFWNPIDANTFWTALVTCMDPELAKRLDASVQTVGAGWES 360
QY 361 DDNNMETASQKCTQGRSDLLSNLGRGDEVDYGVDPVGVKSGAIGTSYRGFTAY 420
Db 361 DDNNMETASQKCTQGRSDLLSNLGRGDEVDYGVDPVGVKSGAIGTSYRGFTAY 420
QY 421 QNVSSSNWAFEFHASTWTETLKTIDR 449
Db 421 QNVSSSNWAFEFHASTWTETLKTIDR 449

RESULT 13
US-09-843-250-17

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Db 361 DDNNMETASQKCTQGRSDLLSNLGRGDEVDYGVDPVGVKSGAIGTSYRGFTAY 420
QY 421 QNVSSSNWAFEFHASTWTETLKTIDR 449
Db 421 QNVSSSNWAFEFHASTWTETLKTIDR 449

RESULT 12
US-09-843-250-58
; Sequence 58, Application US/09843250
; FILE REFERENCE: 875.06G8S2 US/09/843,250
; GENERAL INFORMATION: NO. US2003002233SAL naphthalene dioxygenase and methods for the
; APPLICANT: Perales, R.
; APPLICANT: Gibson, D.
; APPLICANT: Lee, K.
; APPLICANT: Smith, S.
; TITLE OF INVENTOR: NO. US2003002233SAL naphthalene dioxygenase and methods for the
; FILE REFERENCE: 875.06G8S2 US/09/843,250
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: PCT/US99/25079
; PRIOR FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1998-10-26
; PRIOR FILING DATE: 1998-10-26
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 58
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE INFORMATION: A polypeptide encoded by SEQ ID NO:58.
US-09-843-250-58
Query Match 99.7%; Score 2401; DB 11; Length 449;
Best Local Similarity 99.8%; Pctid No. 1,26-225;
Matches 448; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 MANNKLVLSSEGLQGLIHDSBPIQSHKXTPANKEWTFHUSLTPAFDVTWVNG 60
Db 1 MANNKLVLSSEGLQGLIHDSBPIQSHKXTPANKEWTFHUSLTPAFDVTWVNG 60
QY 61 IDTVTVSNGSGTATLVCHRGHTLVYVAGNAGVCSYHNGSKNSKSGVPE 120
Db 61 IDTVTVSNGSGTATLVCHRGHTLVYVAGNAGVCSYHNGSKNSKSGVPE 120
QY 121 KDLVGSNKLGLAKVAVSPFPGFTYCGQDPAEPLMDYGDANNYLEWTFHSGEL 180
Db 121 KDLVGSNKLGLAKVAVSPFPGFTYCGQDPAEPLMDYGDANNYLEWTFHSGEL 180
QY 181 ELVDPGKVKTKANNAKPAENPVGDYAVTGMTHASSLRESSTPSLALNALPFGAGL 240
Db 181 ELVDPGKVKTKANNAKPAENPVGDYAVTGMTHASSLRESSTPSLALNALPFGAGL 240
QY 241 QNTSKYSGMWTADGSGVSHADUPELMAPFGAKRKLNEKJGDAVRYTSHACTV 300
Db 241 QNTSKYSGMWTADGSGVSHADUPELMAPFGAKRKLNEKJGDAVRYTSHACTV 300
QY 301 FPNNSKMTCSGVKFWNPIDANTFWTALVTCMDPELAKRLDASVQTVGAGWES 360
Db 301 FPNNSKMTCSGVKFWNPIDANTFWTALVTCMDPELAKRLDASVQTVGAGWES 360
QY 361 DDNNMETASQKCTQGRSDLLSNLGRGDEVDYGVDPVGVKSGAIGTSYRGFTAY 420
Db 361 DDNNMETASQKCTQGRSDLLSNLGRGDEVDYGVDPVGVKSGAIGTSYRGFTAY 420
QY 421 QNVSSSNWAFEFHASTWTETLKTIDR 449
Db 421 QNVSSSNWAFEFHASTWTETLKTIDR 449

RESULT 13
US-09-843-250-17

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Sequence 17, Application US/09843250
 Publication No. US20030022335A1
 GENE INFORMATION: R.
 APPLICANT: Gabson, D.
 APPLICANT: Remick, S.
 TITLE OF INVENTION: NO. US20030022335A1: naphthalene dioxygenase and methods for the same
 FILE REFERENCE: 875.066US2
 CURRENT APPLICATION NUMBER: US/09/843,250
 CURRENT FILING DATE: 2001-04-26
 PRIOR FILING DATE: 1999-10-26
 PRIOR APPLICATION NUMBER: US 60/105,575
 PRIOR FILING DATE: 1998-10-26
 NUMBER OF SEQ ID NOS: 26
 SOFTWARE: SeqSeq for Windows Version 4.0
 SEQ ID NO 17
 LENGTH: 449
 ORGANISM: Artificial Sequence
 FEATURE:

Query Match 99.6%; Score 2398; DB 11; Length 449;
 Best Local Similarity 99.6%; Pred. No. 2.5e-225;
 Matches 447; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

US-09-843-250-17

QY	1	MYNNKLVISFSSGLHSDHSELFOHRLATIPANMLFTHDSLIPADQVYTAAG	60
DB	1	MYNNKLVISFSSGLHSDHSELFOHRLATIPANMLFTHDSLIPADQVYTAAG	60
QY	61	IDIVTVGRONGSIFATLVNCHRGKTLVSVEAGNAGFVCSHGFGSNGELQVPE	120
DB	61	IDIVTVGRONGSIFATLVNCHRGKTLVSVEAGNAGFVCSHGFGSNGELQVPE	120
QY	121	KDLVGSLSNKLGLKAVTARVSPHPTGYCFQDPAAPMDYLDAAVYLFPMHSGGL	180
DB	121	KDLVGSLSNKLGLKAVTARVSPHPTGYCFQDPAAPMDYLDAAVYLFPMHSGGL	180
QY	181	ELVGPQKVTIKANNKAPNPFVDVAVHGMTHASSLSGESSIFSSAGNALPPSGGL	240
DB	181	ELVGPQKVTIKANNKAPNPFVDVAVHGMTHASSLSGESSIFSSAGNALPPSGGL	240
QY	241	QNTSKYSGNGTLDGYSTGVSADLVPELMAFGAKGELKEIGDVPRAIYVSHLNTV	300
DB	241	QNTSKYSGNGTLDGYSTGVSADLVPELMAFGAKGELKEIGDVPRAIYVSHLNTV	300
QY	301	PRNNKATCGSGPQKVPDANTTETVTVAIVKQDPELHSLADSVQTVGPAGWS	360
DB	301	PRNNKATCGSGPQKVPDANTTETVTVAIVKQDPELHSLADSVQTVGPAGWS	360
QY	361	DNDNNMTASQNGKYGQSDLSLNLGSEEDVGVNTPGVGSAIGETSVAGTAY	420
DB	361	DNDNNMTASQNGKYGQSDLSLNLGSEEDVGVNTPGVGSAIGETSVAGTAY	420
QY	421	QNTVSSNWAETFASSSTWTELTATIDR	449
DB	421	QNTVSSNWAETFASSSTWTELTATIDR	449

RESULT 14

US-09-843-250-18
 Sequence 18, Application US/09843250
 Publication No. US20030022335A1
 GENE INFORMATION: R.
 APPLICANT: Gabson, D.
 APPLICANT: Remick, S.
 TITLE OF INVENTION: NO. US20030022335A1: naphthalene dioxygenase and methods for the same
 FILE REFERENCE: 875.066US2

Sequence 19, Application US/09843250
 Publication No. US20030022335A1
 GENE INFORMATION: R.
 APPLICANT: Gabson, D.
 APPLICANT: Remick, S.
 TITLE OF INVENTION: NO. US20030022335A1: naphthalene dioxygenase and methods for the same
 FILE REFERENCE: 875.066US2
 CURRENT APPLICATION NUMBER: US/09/843,250
 CURRENT FILING DATE: 2001-04-26
 PRIOR FILING DATE: 1999-10-26
 PRIOR APPLICATION NUMBER: US 60/105,575
 PRIOR FILING DATE: 1998-10-26
 NUMBER OF SEQ ID NOS: 65
 SOFTWARE: SeqSeq for Windows Version 4.0
 SEQ ID NO 19
 LENGTH: 449
 ORGANISM: Artificial Sequence
 FEATURE:

Query Match 97.6%; Score 2350; DB 11; Length 449;
 Best Local Similarity 96.9%; Pred. No. 1.2e-220;
 Matches 435; Conservative 10; Mismatches 4; Indels 0; Gaps 0;

US-09-843-250-19

QY	1	MYNNKLVISFSSGLHSDHSELFOHRLATIPANMLFTHDSLIPADQVYTAAG	60
DB	1	MYNNKLVISFSSGLHSDHSELFOHRLATIPANMLFTHDSLIPADQVYTAAG	60
QY	61	IDIVTVGRONGSIFATLVNCHRGKTLVSVEAGNAGFVCSHGFGSNGELQVPE	120
DB	61	IDIVTVGRONGSIFATLVNCHRGKTLVSVEAGNAGFVCSHGFGSNGELQVPE	120
QY	121	KDLVGSLSNKLGLKAVTARVSPHPTGYCFQDPAAPMDYLDAAVYLFPMHSGGL	180
DB	121	KDLVGSLSNKLGLKAVTARVSPHPTGYCFQDPAAPMDYLDAAVYLFPMHSGGL	180
QY	181	ELVGPQKVTIKANNKAPNPFVDVAVHGMTHASSLSGESSIFSSAGNALPPSGGL	240
DB	181	ELVGPQKVTIKANNKAPNPFVDVAVHGMTHASSLSGESSIFSSAGNALPPSGGL	240
QY	241	QNTSKYSGNGTLDGYSTGVSADLVPELMAFGAKGELKEIGDVPRAIYVSHLNTV	300
DB	241	QNTSKYSGNGTLDGYSTGVSADLVPELMAFGAKGELKEIGDVPRAIYVSHLNTV	300
QY	301	PRNNKATCGSGPQKVPDANTTETVTVAIVKQDPELHSLADSVQTVGPAGWS	360
DB	301	PRNNKATCGSGPQKVPDANTTETVTVAIVKQDPELHSLADSVQTVGPAGWS	360
QY	361	DNDNNMTASQNGKYGQSDLSLNLGSEEDVGVNTPGVGSAIGETSVAGTAY	420
DB	361	DNDNNMTASQNGKYGQSDLSLNLGSEEDVGVNTPGVGSAIGETSVAGTAY	420
QY	421	QNTVSSNWAETFASSSTWTELTATIDR	449
DB	421	QNTVSSNWAETFASSSTWTELTATIDR	449

RESULT 15

US-09-843-250-19
 Sequence 19, Application US/09843250
 Publication No. US20030022335A1
 GENE INFORMATION: R.
 APPLICANT: Gabson, D.
 APPLICANT: Remick, S.
 TITLE OF INVENTION: NO. US20030022335A1: naphthalene dioxygenase and methods for the same
 FILE REFERENCE: 875.066US2
 CURRENT APPLICATION NUMBER: US/09/843,250
 CURRENT FILING DATE: 2001-04-26
 PRIOR FILING DATE: 1999-10-26
 PRIOR APPLICATION NUMBER: US 60/105,575
 PRIOR FILING DATE: 1998-10-26
 NUMBER OF SEQ ID NOS: 65
 SOFTWARE: SeqSeq for Windows Version 4.0
 SEQ ID NO 19

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/ LENGTH: 449
/ TYPE: PRT
/ COMMENT: Artificial Sequence
/ PRIMER:
/ OTHER INFORMATION: A polypeptide encoded by SEQ ID NO:8.
/ NAME/KEY: SITE
/ LOCUS: U09511 (35)
/ CDS: 1..35
/ OTHER INFORMATION: Aaa = any amino acid.
US-09-843-250-19

Query Match      96 48; Score 3222, DB 11; Length 449;
Similarity 96 48; Mismatches 217; Indels 0; Gaps 0;
Matches 430; Conservative 12;

QY 1 MNYKNILVSSGSLQWHTVHQRKLPQHELENTVYVNSLFTTSLIPAKYNYVWANG 60
DB 1 MNYKNILVSSGSLQWHTVHQRKLPQHELENTVYVNSLFTTSLIPAKYNYVWANG 60
QY 61 TQVYVHQRKLPQHELENTVYVNSLFTTSLIPAKYNYVWANG 120
DB 61 TQVYVHQRKLPQHELENTVYVNSLFTTSLIPAKYNYVWANG 120
QY 121 DEVIVRKSQSLTAFVLCVHQRKLPQHELENTVYVNSLFTTSLIPAKYNYVWANG 180
DB 121 DEVIVRKSQSLTAFVLCVHQRKLPQHELENTVYVNSLFTTSLIPAKYNYVWANG 180
QY 181 ELVQPKVYVLCVHQRKLPQHELENTVYVNSLFTTSLIPAKYNYVWANG 240
DB 181 ELVQPKVYVLCVHQRKLPQHELENTVYVNSLFTTSLIPAKYNYVWANG 240
QY 241 QWYKYSQSLQWHTVHQRKLPQHELENTVYVNSLFTTSLIPAKYNYVWANG 300
DB 241 QWYKYSQSLQWHTVHQRKLPQHELENTVYVNSLFTTSLIPAKYNYVWANG 300
QY 301 FVNSLFTTSLIPAKYNYVWANG 360
DB 301 FVNSLFTTSLIPAKYNYVWANG 360
QY 361 TQVYVHQRKLPQHELENTVYVNSLFTTSLIPAKYNYVWANG 420
DB 361 TQVYVHQRKLPQHELENTVYVNSLFTTSLIPAKYNYVWANG 420
QY 421 QWYKYSQSLQWHTVHQRKLPQHELENTVYVNSLFTTSLIPAKYNYVWANG 449
DB 421 QWYKYSQSLQWHTVHQRKLPQHELENTVYVNSLFTTSLIPAKYNYVWANG 449

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Search completed: December 9, 2003, 16:09:30
 Job time : 23.1429 secs